DOCUMENT RESUME

ED 118 237 PS 008 309

AUTHOR	Dill, John R.; And Others
TITLE	A Study of the Comparative School Achievement of Day Care Graduates. Final Report for Research Project.
INSTITUTION	Day Care Council of New York, Inc., N. Y.
SPONS AGENCY	Office of Child Development (DHEW), Washington, D.C.
REPORT NO	OCD-CB-253
PUB DATE	Jul 73
NOTE	120p.
EDRS PRICE	MF-$0.83 HC-$6.01 Plus Postage
DESCRIPTORS	*Academic Achievement; Achievement Tests; Comparative Analysis; *Culturally Disadvantaged; *Day Care Programs; Demography; *Early Childhood Education; Economic Disadvantagement; Family Characteristics; *Intervention; Negro Students; Physical Health; Program Content; Sex Differences; Social Behavior; Student Records
IDENTIFIERS	*New York (New York); Project Head Start

ABSTRACT

This study investigated the impact of differential programming on urban, low income black children's early school achievement. The 728 children in the study, all residents of the Bedford-Stuyvesant and Brownsville areas of Brooklyn, N. Y., were "graduates" of 17 preschool programs during 1967, 1968, and 1969. The programs included 6 licensed, developmental day care centers; 4 unlicensed, custodial day care programs; 4 Head Start Centers; and 3 Board of Education Early Childhood Centers and prekindergarten programs. Specific information about each of the programs was obtained from a retrospective interview schedule and included program objectives, facilities, staff, curriculum, parental involvement, and ancillary data. Data collected from elementary school records included demographic information (particularly birthplace and family characteristics), school attendance, personal/social behavior, physical/health status, and school achievement as measured by the Metropolitan Achievement Test and the Reading and Mathematics Test for New York State Elementary Schools. The results strongly suggest that children from licensed day care programs are performing better than their peers during the early school years. Specific results and data limitations are discussed in detail. (ED)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. Nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

1-76

PS

ED118237

The Day Care Council of New York, Inc.
114 East 32nd Street, New York, N. Y. 10016 ▪ MUrray Hill 5-7017

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

FINAL REPORT FOR RESEARCH PROJECT

OCD-CB-253

July, 1973

A study of the comparative school achievement of day care graduates

John R. Dill, Ph.D.	Project Manager
with	
Marjorie Grosett, M.Sc.	Executive Director Day Care Council of New York
and	
Corine Bradford, M.A.	Project Consultant

PS 008309

ACKNOWLEDGEMENTS

A number of individuals deserve considerable acknowledgements for their contributions to and participation in the collection of the data. First, the parents of the children who composed the present sample deserve our special thanks. The various preschool personnel who tolerated our innumerable telephone calls, visits, and interviews are acknowledged. The public school officials, many working under conditions of extreme stress and tension, are deserving of a vote of appreciation.

The following people individually played key roles in the execution of the project: Mr. Horace Greene who contacted many of the public schools; Mrs. Elinor Guggenheimer, provided significant information on the history of New York day care; Mrs. Nancy Stewart and Mrs. Esther Cole contributed many of their brilliant insights to various aspects of the project. Miss. Barbara O'Garrow of the CBMC Early Childhood Resource Center provided many of her professional skills to make the data collection analysis efforts successful; Ms. Lillian Torres, Ms. Angela Rodriquez, Ms. Harriet Coursey, and Ms. Sandra Monroe-all Educational Technicians at the Early Childhood Resource Center-arduously worked (and overworked) in collecting data in the schools; the other staff members of the Resource Center provided significant input at various stages of the project. A final note of thanks is extended to the secretaries at the Resource Center-Ms. Frances Davis and Ms. Jean Hunt who contributed their excellent typing skills in preparing this report.

The execution of data collection and the preparation of the present report were the sole responsibilities of the senior author. Any omissions and errors contained in this report are his and his alone.

TABLE OF CONTENTS

Chapter Page

I. INTRODUCTION.. 1

A. Research questions.............................. 3
B. Delimitations................................... 3

II. REVIEW OF RELATED LITERATURE........................ 5

A. Historical overview of child care.............. 5
B. Prominent contemporary preschool approaches.... 9
C. Theoretical underpinnings of early education and programs.................................13

III. NEW YORK DAY CARE-A HISTORICAL PERSPECTIVE.........18

IV. SAMPLE..29

A. Children.......................................29
B. Community......................................30
C. Early Childhood Programs.......................32
D. Public Schools.................................35

V. PROCEDURES AND METHODS..............................37

A. Identification and Recruitment of sample.......37
B. Accuracy of school records.....................40
C. Day Care Retrospective Interviews..............41
D. Coding of Data.................................42
E. Data Analysis..................................45

VI. FINDINGS AND RESULTS................................47

A. Retrospective interviews.......................47
B. Accuracy of school records.....................50
C. Data results...................................52

VII. DISCUSSION AND IMPLICATIONS.........................82

References..94

Appendix A..96
B...101
C...105
D...110

LIST OF TABLES

Table		Page
1.	Sample size for four preschool categories by sex and wave	29
2.	Comparisons of four preschool program experiences	34
3.	Summary of retrospective interviews	51
4.	Children's birthplace by preschool category	52
5.	Proportions and Z values of children born in the North	53
6.	Percentages of fathers born in the North and South	54
7.	Percentages of mothers born in the North and South	54
8.	Number (total, older, younger) of siblings for each preschool category	55
9.	Family mobility data by preschool category	56
10.	Mean class ranking by preschool category	58
11.	Mean lateness by preschool category	58
12.	Mean absences by preschool category	59
13.	Means of interclass and interschool transfers by preschool category	60
14.	Mean personal/social data ratings across grades by preschool category	61
15.	Mean personal/social category ratings by preschool groups	62
16.	Regression analysis summary table for personal/social category ratings	62
17.	Correlational matrix of personal/social behavior ratings by categories and grades	63

LIST OF TABLES con't

Table		Page
18.	Total mean positive and negative teacher comments by preschool category	64
19.	Critical ratios of positive and negative comments by preschool group	64
20.	Visual test results by preschool group over grades	66
21.	Hearing test results by preschool group over grades	67
22.	Mean height by preschool group over grades	67
23.	Mean weights by preschool group over grades	68
24.	Summary of regression analysis of weights by preschool categories	68
25.	Mean MAT reading scores for each group over subtest area	69
26.	Summary of regression analysis on second grade MAT reading scores	70
27.	Mean MAT reading grade equivalent scores for each group over subtest area	71
28.	Summary of regression analysis on third grade MAT reading scores	71
29.	Percentage of children reading at or above grade level for 2nd and 3rd grades	72
30.	Mean MAT mathematics grade equivalent scores for each group by subtest	73
31.	Summary of regression analysis on third grade MAT mathematics scores	74
32.	Mean percentile ranks on the New York State reading and mathematics tests	74
33.	Mean sex comparisons on selected variables by preschool category	76

LIST OF TABLES con't

Table Page

34. Summary of regression analysis of sex differences across preschool categroy 77

35. Means of selected variables over waves by preschool group 80

I. INTRODUCTION

For the past century, American Child Care Services, programs, and practices have undergone various formats and purposes. This diversity has led to the evolution of improved child care arrangements, although such services have not been universally advocated, endorsed, and implemented. Given the social and scientific advancements in our highly technological society, there still remains piecemeal concern and understanding regarding the nature and needs of early childhood, especially for those vital developmental years between birth and six.

On the federal, state, and local levels, governmental institutions and policy makers have not enacted the quality and kind of social legislation and policy that could foster optimal care and welfare for the young child, although in recent years indicators of promising legislation are sometimes evident. Nevertheless, child care has survived its somewhat tumultuous origin and growth and will continue to advance to a status where the majority of American children will be able to participate in and benefit from optimal care arrangements. Yet before this time comes, the significant challenge child care must address is the establishment and stability of quality developmental programs and services for young children and their families. From its historical origins, the field of child care has evolved from primeval group care-giving arrangements to the more recent status of a well defined discipline based on theory, research, and methodology, however, within the context of these advancements, there still exists a significant and unfortunate dichotomy between the philosophy of "desirable" child care and the actual implementation of child care practiced on the local level. In both our large metropolitan areas and rural communities, it is not unusual to find day care centers that are minimally custodial and even dangerously unsafe for young children. This type of child care "lag" or "gap" continues to be the cancer of early childhood education.

However, in other quarters, one can identify programs that have evolved or developed around the premise of providing the educational and developmental foundations of fostering a child's language, intellectual, physical, and social skills. Frequently, child development experts unwittingly characterize the rationale of these programs as "innoculations" against subsequent academic and social failure, while other early educational proponents view such programs as preparatory (i.e. preschool) experiences to later development. Regardless of the particular position that is proposed, it is widely shared by both schools of thought (and many laymen) that all children should encounter during his first five years an environment that offers a variety of stimulation (cognitive, social, physical) provided by qualified adult care givers.

The present report is addressed to the next obvious question: what differences, if any, exist between children who have undergone various kinds of preschool experiences? While this question cannot be comprehensively answered in one report, an attempt will be made to suggest and provide a partial answer to this query.

A. RESEARCH QUESTIONS

Specifically, the following research questions will be addressed based on the data collected from public school records of comparable samples of children:

1) How does the early school achievement of day care graduates from various preschool programs compare to each other?
2) What demographic/family variables differentiate children with various preschool experiences?
3) What personality-behavioral differences exist between children who have undergone various preschool experiences?
4) Does health status differentiate children from different preschool experiences?
5) Do other indicators of school performance (attendance, class placement, etc.) differentiate children from various preschool programs?

B. DELIMITATIONS

Due to the nature of the present study in terms of its design, data collection methods, and the actual nature of the data, certain limitations must be imposed on the implications of results and findings reported here. They are:

1) Since the data were collected in a small sample of Brooklyn Public Schools on children who attended various preschool programs, generalizations are limited to this sample.
2) Since the children were not randomly assigned to preschool programs and public schools, one cannot assume that the present study employed a true experimental design.
3) Since the public school records are recorded by different school personnel, the accuracy of these records must be viewed cautiously.
4) Since the children in this study entered the various preschool programs as self selecting volunteers, one cannot assume certain dimensions of equality or sameness in terms of those factors which may influence school achievement.

5) Although, the present methodology attempted to match subjects within wave on significant variables, there remains a host of other variables which can create uncontrolled variance between subject groups.

6) No direct implications regarding the comparative quality of different preschool programs can be drawn.

7) Children who moved from their original community (at preschool) were not included since specific school experiences would contaminate the results.

II. REVIEW OF RELEVANT LITERATURE

A. HISTORICAL OVERVIEW OF CHILD CARE

In order to comprehend the existing nature of different early educational programs -- day care, head start, etc.. It is necessary to review certain vital components and determinants of their existence and functioning. This review of the literature will highlight three major considerations that have influenced early childhood programing:

1) The history of the American early educational movement;
2) Prominent contemporary preschool programs and approaches;and
3) The theoretical underpinnings of education during the early years. The resultant discussion will be oriented toward the ultimate issue addressed in this report; the differential impact of preschool experiences on subsequent educational achievement.

Lazerson (1972), in his historical review of America's early education movement, notes that three themes have dominated the dynamics of this nation's thrust of educating its young children. The first theme is the expectation that social reform would result from early educational experiences through instilling later school success and social mobility. The second theme considers the uniqueness of the childhood period as establishing the basis for later development, while the third theme emphasized the impact of early education on the educational system through reforming the schools and proposing the introduction of various innovations.

Early education in the United States shares the parallel developments in both the kindergarten and nursery school movements. The kindergarten historically originated from the concepts and thoughts of the German educator Friedrich Frobel (1782 - 1852) who postulated a child-centered approach consisting of using experiences and materials that would draw upon the child's inner needs through addressing the play, spiritual feelings, and other spontaneous elements of a child's behavior. Frobel's impact on America was carried out by a small band of his disciples, notably Susan Blow (1843 - 1916) who founded the first kindergarten in St. Louis, Missouri after the Civil War (Evans, 1972). The kindergarten was enhanced by the establishment of various special interest groups and organizations who fostered a wider and more recognized status for the kindergarten concepts. Additional impetus was contributed during the 1900's when educator/Philosopher John Dewey criticized education's rigid and inflexible practices and suggested that early education should stress realistic socialization experiences and problem solving. At about the same time, Italian feminist Maria Montessori's methods came to America's shores. Montessori' emphasis on individual freedom, nondirective teaching, and specialized materials were attractive to and consistent with the progressive educators who objected to the rigid pedagogy of the educational experience. However, due to Montessori's own rigidity regarding her philosophy and method, few American educators widely embraced her program in American classrooms (see Lazerson 1972) during this time.

During the 1920's and 1930's the kindergarten movement continued to progress. This was partly due to the emergence of child development as a definitive scientific discipline in such reputable research centers as the Iowa Child Welfare Research Station, Columbia's Child Welfare Institute, and the Yale University Clinic of Child Development headed by Arnold Gesell.

Over the suceeding decades, the kindergarten movement was marked by a significant increment of enrollment (see Evans P.6). According to Ream (1968), in 1949 over 2.4 million children were kindergarten enrollees; by 1968, however this figure reached 3.1 million.

On a parallel level, the nursery school movement developed as an entity of its own. Nursery schools were founded after World War I and emphasized an educational philosophy rather than the custodial care ~~image more frequently associated with~~ early day care institutions. On the other hand however, while the already existing kindergartens stressed intervention approaches for the children who were mainly from impoverished urban conditions, the nursery schools were oriented more to middle class children and had received an earlier interest in parent education. Cooperative nursery programs sprouted up on many university campuses as model programs. It is important, however, to distinguish between the day nursery and the nursery school. The former (or day nursery), frequently operated in settlement houses for the poor, emphasized physical care, child welfare, and other basic care-giving experiences, while the nursery school emphasized parental instruction, enrichment, and socialization experiences. According to Fain and Clarke-Stewart (1973):

> By 1942 the educational and developmental philosophies of the day nursery and nursery school were undistinguishable and by 1950...the day care center was treated as one

> kind of nursery school, identical to all the early childhood programs in its assumptions about the child, recommended curriculum, teacher behaviors, and so on (p. 22)

During the great depression years, the Works Projects Administration hired unemployed teachers who formed the manpower to staff the greatly increased number of nursery school and day care facilities. In 1934, over 3,000 schools were operating (see Lazerson) with enrollments of over 65,000 children, under the supervision of 7,500 teachers.

The depression nurseries generated larger numbers of World War II day care centers under the auspices of the Lanham Act which provided a significantly larger number of centers for children of mothers who joined the wartime labor force (see NSSE, Lazerson P. 51). Accoridng to Davis (1947), in 1943, the wartime day care centers numbered over 1,481. In 1946, federal funding, however, was terminated, resulting in a significant decrease (almost half) of children served. Only in California and New York were vestiges of public day care and nursery programs still visible.

Between World War II and the 1960's early childhood education in its various forms enjoyed increasing popularity among politicians, educators, and the general public, the two significant achievements during these years was the emphasis in child development research on the importance of the child's preschool learning experiences and the mid 1960's war on poverty that gave birth to project Head Start which was oriented to comprehensive services (health, educational, nutritional, and social) to poor children.

Quite recently, the early education movement has been highlighted by the existence of various theoretical and programatic approaches (see Parker, 1970) such as the concept of extending enrichment to the subsequent early school years. In fact, these recent signposts indicate that the early education field has a healthy future in which maximal effectiveness and greater recognition will be only two of the many important accomplishments in educating young children.

B. PROMINENT CONTEMPORARY PRESCHOOL APPROACHES AND PROGRAMS

A salient aspect of contemporary early education has been the impact of various models and approaches. These models emerged prior to and during the earliest beginnings of the national compensatory educational thrust in the early and mid 1960's. Although there exists a wide diversity of opinions as to appropriate ways of teaching the yound child, the common feature of all of these efforts has been to provide the child with environmental enrichment and stimulation which his immediate surroundings might have neglected. Martin Deutsch, (1968), who pioneered in one of the earliest attempts to provide enrichment to children from impoverished environments, stated in 1963:

> "The preschool situation can serve as a real stimulatn to development and learning, as well as a socio-cultural bridge between the background of the slum child and the demands of the school...essentially, what is being said here is that the child, as a thinking organism and as a potential contributer to society, must be reached at as early an age as possible, particularly if he is marginal to our major cultural streams. (P.51)"

Within this conceptual parameter, the diverse models of preschool compensatory approaches were launched. What must be recognized is that although the stress on deprived children led to preschool education as an antidote to poverty, other sectors of early education were affected in terms of developing increasingly sophisticated programs, processes, and procedures in educating the young child. Armed with what seemed to be a surplus of research and demonstration monies, psychologists and educators initiated and designed their approaches of effective preschool programing.

The available space in this present volume is inadequate to comprehensively review and describe many of the preschool models that have appeared upon the educational horizon in the last ten years. However, for the present purpose, it is vital to describe briefly some of the more prominent and divergent models that have emerged.

1. PIAGETIAN-BASED PROGRAM - There is very little disagreement that Jean Piaget has made a major impact on American child development and developmental theory. Various American scholars such as Cecelia B. Lavatelli, Irving Sigel, and Constance Kamii have attempted to translate Piaget's developmental notions into curriculum strategies for young children. Kamii (1967) has developed a prominent Piagetian-based preschool program whose major goals is the attainment of formal operational thinking (within Piaget's framework of "intelligence") and cognitive processes. The emphasis in Kamii's approach is in matching various curriculum activities and areas with the child's particular intellectual performance level (e.g. preoperational).
2. STRUCTURAL PEDAGOGY - In contrast to typical preschool experience that emphasizes play, social development, and most recently cognitive development, educators Carl Bereiter and

Siegfried Englemann (1966) have developed an approach whose controversial nature has been notorious. According to Bereiter and Englemann, the improverished child is deprived in language and reasoning skills. The appropriate learning experience for these children then is a sequence of an orderly, structured curriculum in which pattern drill is dominant. The teacher's behavior can be moderately described as directive, if not obtrusive in interactions with the children. An overall consideration of this approach is the attainment of definitive behavioral objectives in language and communication skills.

3. A RESPONSIVE EARLY CHILDHOOD PROGRAM - Most educational experiences are those which require children to respond to the program which is presented to them. Adopting an alternative and contrasting approach, Glen Nimnicht (1972) has developed an early educational program which responds to the child, rather than requiring the child to respond to it. In lieu of emphasizing the learning of specific material and content, Nimnicht's approach emphasizes the process of learning (learning how to learn) and fostering the child's positive self image. In Nimnicht's classes, children are encouraged (similiar to the Montessori approach) to freely explore the learning environment. Their classroom experiences are based on self pacing and self discoveries. Nimnicht's system include several components of which the most prominent is his parent/child toy library which attempts to maximize the parents' role in the child's educational development via interactions with their young children.

4. A HOME TUTORING APPROACH - The aforementioned models have

been usually implemented in a group context, in which a classroom is the situational learning experience. Quite recently, however, a few educators have begun to create programs that not only take the educational context to the child's home environment, but has provided programming at an earlier age. A case in point is Earl Schaefer's (see Schaefer and Aaronson, 1972) Infant Education Research Project. Schaefer's program basically is a home tutoring program for young children, ages 15 to 36 months. The purpose of the program is to foster intellectual and academic achievement in the child through daily one hour tutoring sessions in which the mothers' roles are encouraged and maximized. A wide assortment of toys and games appropriate to the child's performance level are chosen and used by the home tutors. Schaefer has reported that beneficial effects not only in terms of the child's intellectual progress, but comparable effects have been obtained in terms of family attitudes toward the developing child.

These models and approaches are only a few of many different and prominent concepts of preschool programing. Each approach has its wide audience of both supporters and antagonists. Similiar to the other programs, their popularity and effectiveness has been substatiated by both testimony and evaluative evidence. Perhaps the major notion circumscribing preschool approaches is neither the how of program/curriculum methodology, nor the what of specific learning materials, instruction, etc., but the why of theoretical underpinnings and rationale which continues to need universal support, understanding, and implementation.

C. THEORETICAL UNDERPINNINGS OF EARLY EDUCATION - It is difficult to identity the primal roots of the recent thrust in contemporary early education. An overview of recent prominent models indicates that the orientation of providing the child (especially if he is of a background with impoverished conditions) with enriched stimulating experiences and encounters surpasses philosophies of the past that stress play, socialization, and general personal growth, from the socio-political perspectives, America during the late 1950's became acutely and abruptly aware of its "intellectual gap" when the Russian satellite Sputnik was launched. This achievement by the Russians prodded social scientists, educators, and politicians to look harder at our educational system.

Concomitantly, psychologists began to re-examine man's malleability especially as it applied to the role of environmental stimulation altering intellectual functioning. Some of the leading figures in psychology published highly influential works that eventually would set the direction for early education in the 1960's. For example, Benjamin Bloom's Stability and Change in Human Characteristics (1964) presented various notions regarding the impact of differential environments on intellectual functioning, with particular implications for educating young children:

> "Although there is relatively little evidence of the effect of changing the environment on the changes in intelligence, the evidence so far suggests that marked changes in the environment in the early years can produce greater changes in intelligence than will equally marked changes in the environment at later periods of development. (p.67)

While Bloom's remarks were supported by many of his colleagues, the adversary position regarding intelligence still was shared by many others. Psychology has historically always wrestled with intelligence within the polemical context of the nature-nurture controversy. Based on a Darwinian notion many proponents of the "nature" view stress the role of genetics as the major determiner of intellectual functioning, while the opposing environmentalists (nature) view genetics as a minor determiner of intelligence. The latter orientation scored an additional point during the 1960's with the widely acclaimed text Intelligence and Experience (1961) by J. McVicker Hunt. In reviewing a wide variety of research studies, Hunt proposed that the issue of a fixed, immutable and genetically determined intelligence was untrue and suggested that the quality of intellectual processes and strategies the individual utilizes will in turn be determined by the kinds of encounters a child has within his environment. Bloom and Hunt were among the several other theorists who laid the newly emerging thrust to cognitive and intellectual stimulation. Along with them, Deutsch (1967), Bruner (1962), and Piaget (1952) had great impact on the notion of intervening and enriching a child during his crucial preschool years.

With the increasing emphasis of various social scientists gathered around the functioning of early education, a recent residual by-product has been the plethora of evaluative studies on the effect and impact of preschool education particularly Head Start and similiar programs.

The most encompassing evaluation of Head Start was conducted by Ohio University and the Westinghouse Learning Corporation (1969). In this study, the investigators measured the intellectual and personality development of primary school children who experienced Head Start programs (both summer and full year). Comparison groups of "matched controls" children who did not experience Head Start were used. Generally, some of the major findings were: A. The summer Head Start did not lead to any cognitive or affective gains; B. Only selected cognitive advantages (improved reading readiness) were present in children experiencing full year Head Start; and C. Head Start children from predominately Black centers in the south had clear advantages in affective development.

Just as noteworthy as the Westinghouse Report is the battery of criticism that followed (see Smith and Bissell, 1970). Most of the critiques focused in on the methodological weaknesses of the study which in the final analysis indicates that the report did not provide either a condemning or praiseworthy picture of the Head Start program effort.

However, the major question plaguing both proponents and opponents of early educational programs is: does it lead to lasting gains and advantages for the children who have such experiences?

The early evaluation studies have shown that generally whatever gains enriched children acquire are, for the most part, "washed out" by the time they enter or go through the early grades. For example, Wolff and Stein (1967) studied children from the New York Head Start program. These researchers found that higher teacher rankings of Head Start children were obtained for those children in all Black or Puerto Rican kindergarten classes; Head Start children received higher ratings in school adjustment, which unfortunately dissipated; and the cognitive-educational attainment of the Head Start sample did not differ significantly from the control group. Similiarly, the Wolff-Stein Report suffered a barrage of criticism (see Gordon, 1966, and Bronfrebrenner, 1966) in terms of its methodological flaws. However, these data do suggest that depending on the follow-up experiences that Head Start children have, positive advantages are evident. In fact, Grotberg (1969) notes in her extensive review of the effectiveness of various programs: "...whether children maintain their advantage after a Head Start experience seems to depend, then, on length and type of Head Start program, appropriateness of learning experiences, and level of parent participation (p. 42)".

Relatedly, in a study similiar to the present report, Wolff and Stein studied day care graduates' early school achievement. Wolff found that a greater proportion of day care graduates (compared to those without day care) scored at or above grade level, unfortunately, this study's findings were also limited by the methodology employed by the investigators.

In summary, then it seems that early educational programs, especially those developed for the impoverished child, have been created for the sole purpose of providing him with the skills, abilities, and achievement that would allow him to function competently in the academic arena. The evaluation data are not entirely encouraging yet, as Evans (1972) and others have commented, perhaps the goals of Head Start and similiar programs were too ambiguous (or ambitious) in the first place. Educational enrichment or remediation, regardless of its sincerity or intensity, cannot counteract some of the greater social, economic, and psychological injustices inflicted on young disadvantaged children from minority groups.

This reality and other interconnected factors outgrowing from the late 1960 enrichment impetus have ameliorated the concept of effectiveness of early education. For instance, the education of the very young child (2-4 years) has been implemented by some program developers. Enrichment in the home setting (see Levinstein, 1972) has attracted many partisans who view these models as viable alternatives or antecedent adjuncts to traditional preschool experiences. It must be understood that these most recent developments have also affected directly and indirectly the common folk who work daily with children in the thousandsof nursery schools and day care centers.

If the popularity of training institutes and national conventions is a true indication of impact, then one can unequivocally state that the various innovations and approaches are being disseminated to early childhood educators on the local level. However, one must be cautious in interpreting this reality; for there still remains a number of programs (perhaps the majority) were custodial arrangements predominate over a well planned strategy for fostering language, cognitive, and social development.

III. NEW YORK DAY CARE - A HISTORICAL PERSPECTIVE

The history of New York City's day care effort is a chronicle of events and accomplishments that has not been duplicated in any other municipality. Political participation from its citizenry, concern by its elected and appointed officials, imagination and courage in pioneering for the welfare of young children are all factors in New York's dynamic status as the leading city in the history of American day care development.

One of New York's earliest day care centers, the Nursery for Children of Poor Women, was established and organized on Manhattan's depressed lower east side in 1854. This pre-Civil War program was established to care for poor tenement children whose mothers had to seek employment. Even during this period, conditions of poverty were so severe that, despite the cultural values of the times which advocated mothers to remain at home with their children, many impoverished women were often forced to leave their children unattended in order to seek employment out of the home.

Similiar nursery programs began to emerge in the form of the French-influenced creches, which many prominent women had visited in Europe. In 1872, the Virginia Day Nursery program was opened on East Houston Street in honor of Virginia Osborn, a New York day care pioneer. This program still exists today and has expanded beyond its original lower east side base to two additional locations in Brooklyn. The Bethany Day Nursery, presently known as the Bethany-Lenox-Hill Day Nursery, was established in 1887. Both programs served a substantial constituency of the children of Civil War widows.

It is interesting to note that these particular programs and others that followed them emphasized minimum custodial care and were staffed by maids who provided a basically safe environment for their young charges. The safe-physical care emphasis did not combine with an educational perspective until the turn of the century during which kindergarten concepts began to be added to already existing programs. This movement, according to Fein and Clarke-Stewart (1973), was influenced greatly by the German educator-philosopher, Friedrich Froebel who perceived the child as a preformed entity requiring environmental stimulation. He believed that this was best accomplished through regimented and prescribed educational experiences.

A second major influence towards an educational emphasis was the Settlement House movement which began in Chicago in 1898. Hull House was first established by Jane Adams (1910). Here, America's prototypical local "poverty program" addressed the needs of the urban poor - with some emphasis on recently arriving immigrants from Italy, Germany, Russia, and other European nations. Based on the belief that these newcomers needed assistance in adapting to a strange environment, educational enrichment for the young was an inevitable and important part of the program.

Health standards were later addressed as a major child care program need in the existing day care centers. According to Baumgartner, Goldsmith, and Bokhaut (1946), New York City was the only locality during the early 1900's that had day care centers under the jurisdiction of the Board of Health. In fact, New York's Health Agency had devised health standards applicable to day care facilities as early as 1895 (see Fleiss, 1962). During later years, the Health Department required regular medical examinations for all children enrolled in nurseries and day care programs.

Thus, it is evident that the three pronged approach of providing basic health, education, and welfare services to the young nursery and day care child was beginning to be established in New York City before World War I. This accomplishment, although meager by contemporary standards, nevertheless represents an early citizen committment to day care and illustrates New York's pioneering efforts.

The post World War I years were marked by activity of a new kind in New York day care programs which had national significance. Academicians and educators began to turn their attention to day nurseries for the training of teachers and for experimental and demonstration projects. Both Teachers' College, Columbia University and Bank Street School started such programs during this period.

During the great depression in the 1930's, interest in the welfare of young children began to heighten. The Works Progress Administration (W.P.A.), earlier known as the Federal Emergency Relief Administration designed programs to relieve the massive unemployment and to increase educational experiences. The W.P.A. efforts, in fact, marked the first time that nursery programs were officially incorporated and supported by federal efforts. In fact, according to Davis (1932), the number of nursery school programs in the United States increased from three to two hundred sixty-two. However, consistent with America's day care trend, the developmental needs of young children were still relegated to a secondary status, for the major thrust of the W.P.A. nursery effort was to provide employment for jobless teachers who staffed the nursery centers along with nurses and recreational leaders. Fleiss (1962) reports that there were fourteen W.P.A. nurseries in New York City, housed in either settlement houses, Public Schools, and various other sites. Towards the approach of the 1940's, however, W.P.A. staffs were considerably reduced due to the difficulty of recruiting unemployed teachers, who like other people, were experiencing America's reconstituted economy.

However, New York's day care picture changed radically upon America's entry into World War II. In 1942, the Community Facilities Act (commonly known as the Lanham Act), provided the first federal money for child care facilities. However, New York City was ineligible for Lanham funds since it was not designated as a war impacted area. Despite this, in March of 1943, the New York State legislature appropriated funds to New York City for day care facilities. A tripartite funding plan was developed whereby the N.Y. State War Council paid one third of the cost, the city paid another third through the Mayor's Committee on the Wartime Care of Children,and parent fees plus the contributions of the local citizen boards paid the remaining third. By far the largest number of facilities, of course, were profit-making, proprietary establishments without public money of any kind.

The overwhelming need for women in war industries resulted in an astounding growth of child care faiclities and services. This sudden mushrooming however, led to a diminution of quality in programing, for as Baumgartner, Goldsmith, and Bokhaut (1946) attest, few standards stipulated by the New York Municipal Health Code were maintained by the larger segment of day care and nursery facilities, especially those opened by private operators and run for profit. In fact, a survey conducted in 1942 under the auspices of the Bureau of Child Hygiene of the N.Y.C. Health Department found only fifty-three percent of child caring facilities (209 out of 400 inspected) had licenses from the Department of Health (see Fleiss, 1962). It is interesting to note that the New York Municipal Sanitary Code, then mandated for day care programs, included only fire protection, sanitation, disease prevention, and building standards for child caring facilities. No provisions or requirements pertaining to the educational component (i.e. staff, curriculum, or equipment) were then required.

Similiar to many metropolitan areas during the early years of World War II, New York City was faced with an immediate need to provide care for extremely large numbers of children. However, in keeping with its pioneer history, New York during the war years initiated one of the earliest models of cooperation, surpervision, and mutual planning between groups who otherwise would be viewed as having diverse, if not conflicting interests. Individuals and groups representing labor organizations, religious institutions, educational, federal and social service agencies began to form a conglomerate advocating additional services for the day care child. Their combined efforts, spurred by the then imminent closure of W.P.A. centers in 1942 led to the drafting of a petition which was sent to New York Mayor Fiorello H. LaGuardia demanding the maintenance, expansion, and improvement of New York's day care services and facilities. In response, LaGuardia appointed a study group consisting of the Commissioners of Health and Welfare and the Superintendent of schools to ascertain the needs of New York's young children.

In the fall of 1942, the three commissioners reported to LaGuardia (according to Fleiss) that:

A. They did not want to encourage mothers to abandon their offspring for employment purposes;

B. New York, because its employed woman-power was higher than national averages, would face serious problems in the near future;

C. There were over 145 unlicensed centers and 400 others which needed expansion, improvement, and coordinated efforts;

D. The 32 W.P.A. nurseries be expanded to 40.

The Commissioners' Report and LaGuardia's response led to his establishing the landmark Mayors' Committee on the Pre Wartime Care of Children which consisted of an interdisciplanary body of governmental, educational, religious-affilated, and concerned citizens who were charged with the task of extending the city's day care operations.

As early as the World War II years, New York City's day care program was highly unique in the dual sense of the funding arrangements for non-profit centers and the existence of citizen day care boards. Funds basically derived from four sources - the State, the City, the governing boards and participating parents. The public monies were channelled through the city's Department of Welfare to the private non-profit incorporated day care boards. The Board's responsibilities included accountability for maintaining a quality program which would foster the child's physical, social, and emotional needs within certain basic limitations laid down by the Department of Welfare. Thus, in many ways, the organizational and operational direction of day care as it presently exists in New York originated during the war years although many fundamental aspects evolved decades prior to the war.

As World War II ended in 1945, the temporary status of Lanham Act funding was becoming obvious. New York's Governor Thomas E. Dewey commissioned an evaluation team to determine the status of the state's day care program. The document emanating from this project, known as the Horan Report, concluded that on the basis of cost analysis, overall welfare priorities, and lack of long term effectiveness, state participation in New York's public private day care program should be terminated. Governor Dewey acted on this recommendation in 1947.

This action, however, did not deter the determination of New York City's day care advocates. On the citizen level, two influential organizations evolved: the Citizens Committee for Children, which was established in 1945 and the Day Care Council of New York which was founded in 1948. This strong citizen movement succeeded in convincing the city council to assume major responsibility for the support of day care programs by appropriating funds through the City Welfare Department to be administered by a special Division of Day Care (which was created in 1943). Next, standards were developed under the Municipal Health Code for day care centers which were concerned with such matters as staff ratios and qualifications as well as other aspects of an educational program for young children.

Perhaps the most important post war event influencing New York City's day care movement was the founding in 1948 of the Day Care Council of New York by Mrs. Randolph Guggenheimer and other concerned citizens. This same group later went on to found the National Committee for the Day Care Children - now known as the Day Care and Child Development Council of America.

In terms of purpose, the Day Care Council, since its inception in the post war years, has launched effective campaigns against a variety of problems that have threatened the character and quality of New York's day care programs. Other major functions of the Council have included the establishment of personnel and staff benefits including opportunities for advanced training, formulating and encouraging higher standards for personnel; conducting various studies (including the present) related to the nature and value of day care services. Additionally, it strives to interpret day care priorities, needs, and goals to the broader community.

New York City day care in the 1950-1960 period was marked by the establishment of greater coordination and functioning between the public and private agencies concerned with the care of young children. Also during this period, a greater stabilization of funding for programs was established. In a related domain, in 1959, a new Health Code, governing the licensing of day care programs was established. This code, known earlier as the Sanitary Code, provided comprehensive coverage of beneficial and safe conditions for programs serving young children. The enactment of this code in 1959 represented a pioneering achievement in New York (as well as America) for establishing guidelines and regulations for operating quality centers.[1]

In 1962, with the passage of a new Public Welfare bill which provided a small appropriation for day care services, New York, like other states, were required to appropriate their own matching funds for the development of state-wide programs by 1966. This appropriation did allow New York City's program to expand. Later, a major day care related accomplishment occured with the provision of 50-50 matching of funds (from state and city tax levy monies). This arrangement provided for a significant model of fiscal partnership of funding public day care programs. In 1967, admendments to the Social Security law provided federal funds on a 75-25 matching basis with the state for children whose families qualified as "past, present, and potential" AFDC (aid for families with dependent children) recipients. In New York City, this meant that for eligible children, federal sources paid 75%, while the state and city contributed 12 1/2% each. In 1969, New York City agreed for the first time to provide 100% of day care funding costs to local sponsoring boards. Thus these citizen boards no longer were required to pay a share of the costs of their program.

---

[1] All licensed N.Y. day care centers, such as those in group one in the present study, must meet the requirements as outlined by the code, see Appendix for brief description of the code requirements.

During President Lyndon B. Johnson's administration, the Economic Opportunity Act of 1964 provided for the birth of project Head Start which blossomed throughout New York's boroughs. Community participation, particularly through various local community corporations, focused much attention on early educational programs (i.e. Head Start and day care).

Perhaps the most significant landmark achievement in New York City's fascinating day care history occured during the sedond administration of Mayor John V. Lindsey. The Mayor reorganized the existing city departments into a more limited number of super-agencies. One such agency was the Human Resources Administration (HRA) which was originally set up in 1966 and in July of 1970 came under the leadership of Jule Sugarman, former National Director of Head Start. Most child development programs in New York City came under the authority of HRA.

Mayor Lindsey appointed an Early Childhood Development Task Force under the direction of Trude Lash, Director of the Citizens Committee for Children of New York City. As a result of the Task Force's work, the Mayor created an Agency for Child Development in the Human Resources Administration in July 1971. Ms. Georgia L. McMurray's appointment as the first New York City Commissioner of Child Development can only be perceived as a distinguishing accomplishment in America's day care-child development efforts.

In summary, it is evident that over the past century, New York City's involvement in day care programming is a distinguishing one marked by political activism, governmental organization, and landmark establishment of organized services for young children. New York, like many other metropolitan areas, still suffers from not providing massive quality child welfare services to all the children who require it. Some experts have estimated that for every child enrolled in a New York Day Care program, there is another child who similiarly needs the service. Another cogent issue is that there remains within all of New York's boroughs a number of unlicensed, custodial programs that are barely custodial in nature. Attempts by various public and private agencies to provide technical assistance to improve these facilities are greatly exceeded by their sheer numbers and the competition of other day care related priorities. New York's day care complex has come a long way, yet the journey is ongoing. There still remains the need to provide child welfare services in significant numbers and quality for the many thousands of young children and their families who deserve it.

IV. SAMPLE

A. CHILDREN

The sample in this study consists of 728 children (boys = 368, girls = 360). Table I presents the number of children by sex and wave for each of the four categories. All children came from native born, English-speaking Black families. Although the Central Brooklyn community is known for being highly heterogeneous in terms of cultural origins of its Black residents (French, Spanish, and English Caribbean), only those children whose familial roots were American, were included in the sample.

Only children who "graduated" from early childhood programs during the years (or waves) 1967, 1968, 1969 were included as subjects. Using this procedure allowed for comparisons between preschool program experience for a specific year so that children in each wave would be compared to their agemates who would either be enrolled in the same class or in the same grade for the wave.

TABLE I: SAMPLE SIZE FOR FOUR PRESCHOOL CATEGORIES BY SEX AND WAVE

	WAVE 1 1967		WAVE 2 1968		WAVE 3 1969	
	M	F	M	F	M	F
Licensed	34	36	19	28	27	19
Unlicensed	31	36	42	36	42	35
Other	23	13	38	40	24	13
None	18	22	37	43	33	39
	106	156	136	147	126	106

In most cases, children with gross physical and/or mental handicaps were eliminated since such factors can influence school achievement. Typically, such children do not enroll in the licensed day care centers, Head Start, or the various New York City Board of Education Pre-school programs. Similiarly, such children generally do not experience unlicensed "grass roots" centers. Additionally, it is also assumed that no handicapped children were included in the study since school records would have probably indicated a child's handicaps. No such indications were found on the records of this sample of children.

B. COMMUNITY

The children in this study all reside in sections of Central Brooklyn known as Bedford Stuyvesant and Brownsville which constitute a substantial portion of the Central Brooklyn Model Cities area. Unlike many non-white urban communities, Bedford Stuyvesant and Brownsville are highly unique areas. For example, Bedford Stuyvesant is known as the largest Black community in the United States. Many of its residents are near or below the poverty level and dwell in dilapidated housing units, public housing, or private homes. Crime, sanitation, housing, educational and social services are major problems for the area. Brownsville, on the other hand, is known not only for similiar urban slum conditions, but most notoriously in terms of the absence or even inadequate housing. The visitor to Brownsville can walk in certain blocks which are reminiscent of Post War London. Due to delays in urban renewal and slum clearance efforts three and four block areas have been levelled without any new dwellings constructed.

The data from the 1970 census and other statistical sources are even more revealing:

1. Over 12% - (45,061) of the area's population are children under five years of age while less than 10% (4,506) attend some kind of preschool program.[1]
2. According to the New York City Bureau of Health Statistics and Analysis, 32% to 60% of selected diseases (hepititis, lead poisoning, etc.) reported in the entire borough of Brooklyn are contracted by residents in these areas.
3. Only 23% to 31% of the persons (25 years and older) residing in the specified 1970 census tracts are high school graduates.
4. The medium family income of the specified census tracts range from $4442 to $5500.

Thus, it is evident that these Brooklyn community areas of Brownsville and Bedford-Stuyvesant can be characterized by a large percentage of its residents residing in urban improverishment with all its problems and difficulties. Although ambitious and mammoth efforts have been taken by the Model Cities program, and also because of the very extensive political activisim that characterizes these communities, some indices of progress are evident. However, for many of the residents in the two communities there still exists a plethora of social, economic, health, and educational problems.

---

[1] The 10% figure is an estimate based on informal surveys taken by the CBMC EARLY CHILDHOOD RESOURCE CENTER.

C. EARLY CHILDHOOD PROGRAMS

The children in this study were graduates from seventeen preschool programs consisting of six licensed, developmental day care centers, four unlicensed, custodial day care programs, four Head Start centers, and three Board of Education Early Childhood Centers and prekindergarten programs.

In evaluating the nature and purposes of the various programs, differences are in some cases perceptible, while in other cases superficial. Table II presents a comparative analysis of the four program categories along five dimensions. As is indicated in the table, in terms of per child costs, licensed day care centers and the Board of Education Early Childhood Center expenditures rank highest among the categories of programs ($2600 - $2632). The majority of programs serve children in the age range of three to six years, although the grass roots, unlicensed programs frequently will take children virtually from one month onward. In terms of class enrollment, the typical class size for the licensed, Head Start, and Early Childhood Centers consists of 15 children. In the unlicensed centers, however, it is not atypical to find up to 50 or 75 children in a facility that should only accomodate one third of that number. A meaningful correlate to class size is the number of adult staff members. All licensed centers will have a teacher, an assistant, and an aide in each preschool classroom.[1] In the unlicensed centers, where no standard practices are evident, the variation is minimal in the sense that one or perhaps two adults might provide "care" for the specified children in a class. Head Start, and to some extent, the Early Childhood Centers, are similiar to licensed centers in terms of additional adult teaching personnel in the classroom. It is important to note that only in the unlicensed centers are there not levels of teachers in terms of professional training, skill, and experience in early education. Finally, the teacher-child ratio differentiates the four programs: The unlicensed programs having a medium to high ratio while the licensed centers and Head Start programs having a somewhat low ratio. Results from the retrospective interview conducted in and analyzed on the seventeen participating programs will be presented in chapter five. This interview provides detailed and specific information about the programs which the subjects experienced during their preschool years.

---

[1] See appendix D which describes the Board of Health requirements that licensed programs must meet.

TABLE 2: COMPARISONS OF FOUR PRESCHOOL PROGRAM EXPERIENCES

		Cost per child	Ages Served	Children per class	Staff[1]	Teacher/ child ratio
Licensed Centers		$2600	3-6 yrs	15 3 yr olds	1	1:3
Unlicensed Centers		$0-100	0-6 yrs	usually large numbers will depend on facilities	either 2 or 3	can range from 1:15 and above
Other	Head Start	$1,900	3-5	15 per class	1	1:7
	Early childhood centers	$2,632	3-4	15 per class	either 1 or 2	1:3
None		babysitting arrangements $0-20 per week	0-5	not applicable	usually neighbor or relative	not applicable

[1] Staff: Category 1: teacher, assistant, aide Category 2: teacher, aide
Category 3: teacher only

D. PUBLIC SCHOOLS

Perhaps a key term to describe New York City public schools is "diverse". Since the decentralization of the public schools in the late sixties, thirty community school districts have determined independently the educational priorities and emphases based on the policy decisions made by an elected board of local community residents. New York's school system has continued to be embroiled in controversy which surrounds community control of schools. The selection of superintendents, fiscal priorities, and curricular decisions are few of the many polemical issues in the community school districts.

In this study, the four school districts in which the data were collected, are basically no different from the other districts in New York's poverty areas. Variations in teacher staff, curricula, facilities, and other major characteristics do exist, but are probably not vital. Perhaps, the most germane issue for this study concerns the nature of the curriculum in the early grades. In none of the four school districts were one type of reading method and program implemented. Such well known and divergent methods as Distar, the Bank Street readers, and the ITA approach vary within and between schools among all four districts. Based on interviews with school officials, the decision-making process regarding curricular methods and strategies is the responsibility of the school principal and assistant principal although in three of the four districts, an early childhood coordinator was responsible for inter-school coordination for the early grades. In terms of physical facilities, once again, the variation is wide. In some cases, school programs operate in buildings nearly a century old while several new school structures are present throughout the community. In terms of teacher quality, a normal distribution also seems to exist. It is important to highlight however the fact that most districts are engaged in college training programs for their para-professional staff members. Similiarly, in-service teacher training, available from state or federal sources, is extensive.

Thus, this global sketch of the four districts indicates that on a superficial level there exists certain degrees of homogeneity within and between the schools across districts. This representation, of course, requires supportive and empirical validation which presently is not available, thus suggesting to an observer to regard these comments cautiously.

V. PROCEDURES AND METHODS

A. INDENTIFICATION AND RECRUITMENT OF SAMPLE

An initial goal of the project was to select actual central Brooklyn early childhood programs that could be classified into the three categories: licensed, developmental day care centers; unlicensed, custodial day care centers; and other (originally conceived as Head Start and Family Day Care).[1] All preschool centers and the sample of children were located in the Central Brooklyn community within a twenty-five square block area. This grouping of centers with somewhat physical and geographical proximity to each other also assumed that the children would generally attend the same public schools.

Letters were mailed originally to the centers in the three categories, informing staff members of the purpose of the study and requesting them to prepare lists of their "graduating" classes for the designated years - 1967, 1968, and 1969. It was also requested that centers indicate the probable "feeder" schools in which the children would be enrolled.

The day care centers typically maintained poor records, especially the custodial facilities where, in some cases, no records were kept at all. Only in a few centers was there some evidence of accurate and reliable record keeping procedures in that complete lists were quickly submitted to the project team, although children assumed to have graduated during a particular year (or wave) were found in the public schools as belonging either to the preceding or subsequent year.

---

[1] The experimental design of this study actually calls for four groups of children; the fourth designated as none, i.e., without any preschool experience.

Following the acquisition of what seemed to be the majority of children for each wave, the public schools were then contacted. Initially, informal contact was made with New York City's Bureau of Educational Research, an arm of the city's Board of Education. The feedback from this organization indicated that additional and unproductive time would be consummed in submitting a proposal for approval to collect the data. Also, based on the advice of some educators, local community superintendents were contacted since they had assumed certain autonomy under New York City's decentralization plan inaugurated during the late 1960's.

Within the four community school districts in which the study was conducted, the decision making process varied in regard to our being granted permission to enter the schools. In one district, a major contact was through a school board member who bypassed the community superintendent and introduced the project staff to particular principals. In another district, a formal letter outlining the study's purpose was submitted for review and approval by the policy making community board, for a third case, the contact was made through the district-wide early childhood supervisor who provided an entree to the superintendent. And in the last district, the superintendent granted permission only after innumerable and persistent meetings.

The next level of intercourse involved collecting the actual data from the individual schools. In all New York public schools, a master list of children is reputedly maintained in a central school office which indicated the actual class in which the children were enrolled. Initially, the project staff attempted to identify specifically the day care graduates by matching them to the lists obtained from the day care centers. Then, the staff was escorted to the specific classroom in which a particular child was enrolled in order to obtain his cumulative record card which was maintained by his teacher. At this point, the specific data were obtained from the school records. When entire class records were made available, additional children, particularly those suspected to have no prior preschool experience (category four) were matched and selected according to sex, class, and certain demographic factors.

Initially, the staff devised a sample data information form upon which to record the essential data proposed for analysis. However, the early experience in the schools indicated that a more expedient and exacting procedure would be to xerox an blank school form and record all the information exactly as inscribed (see appendix A).

The actual recording of the data varied according to the particular schools. In some cases, the staff was allowed to obtain the entire class file (housed in a small metal box) from the teacher, while in other schools, the school principals, fearing class interruptions, retrieved records of specific children. In several instances, schools in which the day care graduates were supposedly enrolled had no records of a child's attendance thus requiring the staff to visit an adjacent school in search for the particular child.

B. ACCURACY OF SCHOOL RECORDS

As the data collection procedures continued, the staff became suspicious about the accuracy of the school records which theoretically could be challenged on various levels. First, certain demographic information (e.g. number of siblings, present address, parent's birth place) could be inaccurate if the schools did not seriously attempt to "update" this kind of information. Quite frequently, this category of information was recorded upon school entry and not necessarily revised. Secondly, one could question the reliablility of information regarding the child's school attendance (absences and latenesses) since the individual teacher's proclivity for accurate record keeping was a determining factor. The staff was informed by some school officials that these records were considered as legal documents thus requiring high accuracy. Third, the category of teacher evaluations of the child's personality was questionable in that individual teacher differences in interpretation determine how a child is judged. Related to this, the degree to which the teacher is influenced by the former teacher's evaluation is an additional consideration. Finally, the child's achievement data could be looked upon cautiously. A variety of rumors have circulated New York educational circles regarding reading test scores. One such rumor is that some principals eliminate a certain percentage of high achievement scores in order to be eligible for additional state funding, while other boost their test scores in order to publicize an "effective" reading curriculum.

Given this variance in the potential inaccuracy of school records, an attempt was made to evaluate the precision and reliability of school records. The staff conducted several interviews with school officials-teachers, early childhood supervisors, and principals in order to determine the degree of accuracy and precision in which the records were maintained. Specific interests in this area included identifying the school personnel who recorded certain information, determining the factors which the individual would utilize in recording, identifying the actual techniques and methods used, and defining quantitatively the level of accuracy for each category on the school records. It is evident that this process was a prerequisite to comprehending the data.

C. DAY CARE RETROSPECTIVE INTERVIEWS

In a true longitudinal study, a fairly accurate description of antecedent experiences and events should be documented for the specific developmental episode. However, in the case of the present study, the preschool programs which the sample of children had experienced have not been documented. Such a descriptive account could have portrayed the basic antecedent program components (e.g. teacher training, curriculum, materials, etc.) and differentiate *a priori* the three categories of programs. At a basic minimal, such information was necessary in order to justify intrinsically the officially designated differences between programs (i.e. licensed day care, unlicensed, etc.). It is conceivable that certain unlicensed programs could deliver a quality program that would be equated with the licensed developmental services.

In order to describe and evaluate the level of preschool program experience that the sample of subjects encountered, a retrospective interview schedule was devised (see Appendix B). The interview was administered to all program staff who were present, employed, or affiliated somehow with the day care centers during the 1967 to 1969 period. The retrospective interview tapped the following significant areas of day care program operation: philosophy, staff qualification and training, class size, adult-child ratio, curriculum objectives, materials, physical space, and available supplementary services (health, meals, etc.). No attempt will be made to evaluate the centers, but merely to document the nature of program operations during the specified time period.

D. CODING OF DATA

A significant component of the data collection and analysis procedures involved translating or coding the school record data into meaningful categories for computer analysis. The school records consist of five categories of relevant information describing the child's status. The description of coding procedures can be described as follows:

1. DEMOGRAPHIC INFORMATION - child's birthdate, place, parent's birthplace, other family informatio

   A primary focus in this category was to determine the birthplace of key family members since the social science literature has addressed migration and mobility patterns as a consideration. Relatedly, the child's ordinal position and number of siblings also have been addressed in the literature.

2. SCHOOL ATTENDANCE - class ranking, absence, lateness, transfe

   This category was coded primarly in terms of frequency of occurence of a particular behavior - i.e. absences since such data could be indicative of subsequent school performance.

3. PERSONAL SOCIAL BEHAVIOR - provides teacher evaluations of child's personality functioning

   These data were recorded across grades (1,2,3) so that global total scores could be obtained on this dimension. Also each of the six categories (see appendices A and C) of behaviorial descriptions were summated in order to measure the consistency of personality judgements over the three grades. Additional coding included the analysis of open-ended teacher comments of the child's personality in terms of frequency of negative and positive comments.

4. PHYSICAL/HEALTH STATUS - height, weight, vision, and hearing.

   The coding procedure involved recording this information from each grade in order to identify the degree of changes from grade to grade. This method will yield especially relevant data in terms of growth norms. Also, the identification of visual or auditory problems or deficiences will be analyzed. These latter data were coded in terms of normal or abnormal.

5. SCHOOL ACHIEVEMENT DATA - reading and mathematics test scores.

   These data were coded exactly as recorded in the school records. The scores are expressed either as grade equivalents or percentiles.

a. METROPOLITAN ACHIEVEMENT TEST (MAT)

The children in this sample were administered the reading and mathematics tests of the Metropolitan Achievement Test. At the second grade, the Upper Primary Reading Test is administered while the Elementary Reading Test is administered in the third grade. Both MAT instruments yield three scores: word knowledge, which taps the students' reading vocabulary; reading; which assesses the student's sentence and paragraph meaning, and the total reading score. Subtest reliability coefficients are good (.76 to .96), according to Buros (1969). Validity data have been obtained through curricular evaluation and relevant experimentation. Standardization procedures have been judged as excellent.

The MAT (arithmetic) is administered in the third grade. Four MAT scores were reported in the school records: computation in which the student has to perform grade related computations; concepts, which taps the child's knowledge of basic mathematics processes; problem solving, in which certain combinational problems are presented to the student, and total score. Split-half reliability coefficients range from .80 to .92. Validity data are based on correlations with various mental ability measures.

Both MAT measures are administered on the New York public schools in the month of March. Thus, the grade equivalent score (i.e. grade level) is represented as the sixth month of the school year.

b. A second group of academic achievement measures is the Reading and Mathematics Tests for New York State Elementary Schools. The Reading Tests are standardized measures which consists of sections on word recognition and reading comprehension. The Mathematics Tests, also standardized, consist of mathematics concepts, computation, and problem solving. Both tests scores are reported in the school records as percentiles. Both reliability and validity data are consistently high.

E. DATA ANALYSIS

Statistical analyses of the school record data will provide computations of means, standard deviations, and t tests on the following variables for each of the four groups by sex across the three waves.

1. Child's birthplace
2. Parents' birthplace
3. Number of siblings - total, younger, and older
4. Number of times family moved
5. Class rankings - 1st through 3rd grades
6. Days absent - for each grade and total
7. Days late - for each grade and total
8. Personal/social behavior ratings for each grade
9. Number of positive and negative teacher comments
10. Child's height for each grade
11. Child's weight for each grade
12. Visual and hearing tests scores
13. Reading scores for 2nd and 3rd grade
14. Math scores for 3rd grade

Each of the above variables will be used to generate the correlational matrix to tap the existing relationships (if any) between the major variables.

In order to analyze differences between groups on the major variables (e.g. test scores), a multiple regression procedure (analysis of covariance) will be used. Through this procedure, a test of significance of differences is made controlling for initial mean differences of the groups on selected covariates. In this study, the covariates include:

1. Wave (year) effect
2. Sex
3. Birthplace
4. Sibling
5. Interactions - condition X wave and condition X sex.

For each dependent variable (e.g. test score) the first regression equation will be used to partial out the covariates. The second regression equation will be used to test the main effects of condition, and additional equations will be used to test interactions.

VI. FINDINGS AND RESULTS

A. RETROSPECTIVE INTERVIEWS

In order to gain a greater understanding of the nature and scope of the preschool experiences that the children encountered, a retrospective interview schedule (see appendix B) was devised. This schedule covered the salient components of a preschool program and was administered to staff members who were employed in the programs during the 1967-1969 time period. Table III presents six major categories of the programs. In addition, the programs within these categories will be summarized as follows:

1. OBJECTIVES - All four categories of programs seemed to address the needs of the child in global terms. Both the Head Start programs and the Board of Education prekindergartens emphasized a fundamental caretaking role, although the personnel interviewed were astute to know the "proper jargon" to use in describing their programs.
2. FACILITIES - The licensed centers had minimally three classes grouped by ages (3's, 4's, 5's). In the unlicensed centers, the facilities varied from "class" type areas to large auditoriums with fixed chairs. In the Head Start centers, the classroom facilities ranged from partitioned classroom areas to community rooms in public housing projects. The Early Childhood Centers generally were similiar in that classrooms in public schools were used. This cat-

egory of data was consistent with the data presented in table 2 in that the teacher/pupil ratio was similiar to official figures.

3. STAFF - The number of staff members per class varied from three (teacher, assistant, aide) in the licensed day care programs to one in the unlicensed centers. The highest level of professional training seemed to be attained by teachers in the licensed day care centers and Board of Education programs. In the unlicensed centers, no teaching personnel possessed degrees although presently there is an increasing trend in this direction. In fact, one unlicensed center's director indignantly stated that teachers did not need degrees

4. CURRICULUM - In terms of classroom curriculum activities, variations between programs similiarly existed. For example, the licensed programs ranked cognitive, social, motor, and language development equally as very important. Both the Head Start and Board of Education programs ranked cognition and language moderately to very important although differences in emphasis existed between these programs. The respondents from the unlicencensed centers believed that either a division of areas (cognitive, social, etc.) was artificial or in some cases, they did not understand the definitions of the child development areas.

5. PARENTAL INVOLVEMENT - The licensed centers and Head Start centers seemed to have regularly scheduled meetings, primarily emphasizing areas in child development such as discipline, and

understanding how children grow.

6. ANCILLARY DATA - The major distinguishing feature of the four programs is the availability of health services. Only in the licensed programs and the Board of Education programs seemed to have some regularly scheduled visits from a nurse, physician, or dental professional. Although Head Start was supposed to provide health services, the group of centers involved in this study did not have a definite program. The unlicensed programs seemed to not even be concerned with such matters although, in one center, a practical nurse served as a teacher and was individually concerned with the children's health needs.

Based on these dimensions of program descriptions, it seems evident the licensed day care programs enjoy the highest ranking in terms of providing comprehensive quality program experiences for young children. Both Head Start and the Board of Education programs had ranked closely under the licensed centers in terms of program quality. The unlicensed centers are obviously the lowest in terms of program quality and effectiveness in all qualities. These conclusions however must be interpreted with caution since most of the licensed day care programs have had a minimal experience of ten years while both Head Start and Board of Education programs have only existed since 1965. In the case of the unlicensed centers, the oldest program originated in 1961, while the others started in the mid 1960's.

Time has had an inverse effect on these programs in the case of licensed programs. They evidently became better over time, while in the unlicensed programs, their effectiveness was worsened over the years.

B. ACCURACY OF SCHOOL RECORDS

The accuracy level of the information contained on school records was checked through interviews with teachers, principals, and in one case, a school secretary. Generally speaking, school officials treat the child's school records with considerable care and administrators insist that teachers keep their class records updated. Based on interviews from school officials, it is safe to state that the few outdated pieces of information would pertain only to the child's family - e.g. parents with whom the child is living, number of siblings, and present address. It seems that the public schools have not developed a systematic method of updating such information which is evidently regarded as being of secondary importance. Certain other areas of information that were not included in the present study (e.g. special abilities and interests, significant interviews, etc.) were not consistently filled out by school personnel.

In summary then, it seems that the majority of information and data recorded on the school records can be considered as highly accurate. Only in the cases indicated previously, should there be cause for cautious interpretation.

TABLE 3: SUMMARY OF RETROSPECTIVE INTERVIEWS

	Objectives	Facilities	Staff	Curriculum	Parent Involvement	Ancillary data
Licensed	Addressing needs and welfare of whole child and family	Five classes; age groupings 15-20 children in 3,4,5 year old groups	3 adults per class; Director - MA; all teachers with B.A. some assistants with college credit	Ranked motor, cognitive, social development as very important	Conducted parent meetings, sent home evaluative questionnaires	Had available health staff no extra teaching personnel, training workshops at NYU, Bank Street
Unlicensed	Providing education for young children	Facilities vary from distinct classes to open spaces 15-100 children	2 adults per class; none of staff with degrees although some presently enrolled in classes	Felt that all areas were equally important - did not understand the divisions of areas	Had very few, if any parent meetings only in case of trouble	no available health services no training workshops, etc.
Other	Fostering positive self image of child	Hetereogeneous age grouping converted buildings to classes	2 adults per class Director -B.A. Teachers -B.A. 1 aide with B.A.	Cognition - moderately important Language -very important Social - moderately important	Encouraged class participation and home follow through	Had very little health services
	Development of language and basic learning experience	classes with age groupings 15-20 children per group	2 adults per group Teacher - B.A. - M.A. Aides with college training	Cognition and language stressed; social development as least important	regular parent meetings to discuss child development	Regular school health services; referrals stressed.

C. DATA RESULTS

1. Demographic Data

The data in this category consist of those measures and information contained on the school records related to the child's birthplace, family composition, siblings, and the number of times the family moved. Such information is collected by the public schools from the period of initial school entry to the third grade although only grade one to three information will be reported here.

As Table 4 indicates, the children in this sample for each preschool category was classified in terms of geographic (i.e. North/South) locations of birthplace. The analysis indicated that the large majority of the sample (88.9% to 98.1%) were born in the Northern states, principally New York City. In fact, less than five children in the entire sample were non-New York northern born. In the case of the smaller percentage of children born in the South (range = 1.9% to 11.1), certain sociological speculations would seem revealing.

Table 4

Children's birthplace by preschool category

	Birthplace	
	North	South
Licensed	98.1%	1.9%
Unlicensed	93.2	6.8
Other	93.4	6.6
None	88.9	11.1

A z test of significance of proportions was performed to measure differences between preschool categories for children born in the North. As Table 5 indicates, using the proportion of licensed day care grades as the comparative base of measurement, statistically significant differences (.05) were obtained in comparing the licensed graduates to each of the other three preschool programs. Thus it seems that a greater proportion of children attending licensed day care were Northern born than the proportion of children from either the unlicensed, "other", and "none" categories. Similarly, one could state that, on the basis of the present sample, Northern born children are more likely to be enrolled in licensed programs than any other preschool program category. Conversely, if a child was born in the South, there is the greater likelihood that he will be enrolled most frequently in an unlicensed or "other" preschool program (93.2 - 93.4%) or have no preschool experience at all (88.9%).

Table 5

Proportions and z values of children born in the North

	Proportions	z Values
Licensed	.981	
Unlicensed	.932	3.55**
Other	.934	3.54**
None	.889	5.00**

**p<.01

Tables 5 and 6 contain percentages of parents' geographical birthplaces in terms of North and South. As Table 5 indicates, the majority of fathers were Southern born - 66.7% in unlicensed day care to 70.4% in the licensed and "none" preschool categories. The percentages of mothers' birthplaces, presented in the table similarly indicate that the overwhelming majority of mothers within the four categories (from 70.3% of unlicensed mothers to 73.5% of licensed mothers) were Southern born.

Table 6

Percentages of fathers born in North and South

	Birthplace	
	North	South
Licensed	29.6%	70.4%
Unlicensed	33.3	66.7
Other	23.3	76.8
None	29.6	70.4

Table 7

Percentages of mothers born in North and South

	Birthplace	
	North	South
Licensed	29.6%	70.4%
Unlicensed	29.7	70.3
Other	26.5	73.5
None	27.0	73.0

Another demographic characteristic of the present sample pertains to the number of children within a family. This data were analyzed in terms of the total siblings, number of older siblings, and number of younger siblings. The data in

Table 8 indicate that children in the "other" preschool category generally had a larger total number of siblings ($\overline{X}$=3.27) than the remaining three groups. Tests of significance did not lead to statistically significant differences.

In terms of number of older and younger siblings, the Critical Ratio statistic was used to determine the significance of differences between the preschool categories. Table 7 indicates that the range of mean older siblings was from 1.84 in the unlicensed to 2.40 in the licensed group, while the mean number of younger siblings was from .97 in the licensed group to 1.19 in the "none" category. The Critical Ratio tests did not reveal any statistically significant differences between groups in terms of total older or younger siblings. However, the data suggest that children from "other" programs generally tend to have more siblings (i.e. total number) although licensed day care children have more older siblings and fewer younger siblings.

Table 8

Number (total, older, younger) of siblings for each preschool category

	Total		Older		Younger	
	$\overline{X}$	sd	$\overline{X}$	sd	$\overline{X}$	sd
Licensed	3.21	2.62	2.40	2.51	.97	1.62
Unlicensed	2.73	2.15	1.84	2.13	1.06	1.42
Other	3.27	2.30	2.25	2.09	1.14	1.24
None	3.06	2.56	1.92	2.23	1.19	1.58

School record data provided information regarding the parent(s) or guardian with whom the child was living, that is, if the child was living with either both parents, only one parent, or some other adult guardian (aunt, uncle, grandmother, etc.). In discussions with school officials, it seemed that these data could be fairly inaccurate since parents would consider such information as personal if marital seperation occurs. Thus, within this context, this set of data was treated cautiously and was not analyzed beyond frequency distribution which indicated that for the present sample, 90% to 96% of the children within the four preschool categories resided (according to school records) within the same household with both parents.

The data on family mobility during the child's school attendance are presented in table 9. These data indicate that a larger proportion of families whose children attended both unlicensed and the "other" category moved during the child's school attendance than those families whose children experienced the two remaining (i.e. licensed and none) preschool categories.

Table 9

Family mobility data by preschool category

	Percentage of families moving one or more times	$\overline{X}$
Licensed	13.2%	.28
Unlicensed	23.2	.42
Other	25.2	.34
None	14.7	.30

2. School Status Data

The public school records contained a category of data that pertains to the child's general status in terms of his class ranking, his attendance (absences and latenesses) and the number of interclass and interschool transfers.

A widely shared practice in most public schools involved the ranking of classes in terms of academic achievement or or brightness. For example, the generally bright children or the first grade would be in class 1-1, the second numeral indicating the highest first grade class. The public schools from which the present sample was collected varied in terms of their methods of assigning children to specific classes. In some cases, teacher ratings of children's overall performance determined class assignments. In other cases, "problem" children (sometimes regardless of achievement) were placed in lower classes. Given this variation regarding class assignment and ranking, the following data must be interpreted cautiously. Table 10 presents the means and standard deviations of class rankings according to preschool category for the first, second, and third grades. Generally, licensed day care graduates were enrolled in classes of higher achieving students during all three grades, while the other preschool category subjects varied in terms of the rankings after the licensed group. Total means in this table indicate that the licensed preschool children for all grades are ranked in the higher classes ($\overline{X}$=2.7) followed in order by "other" ($\overline{X}$=3.2), none ($\overline{X}$=3.3), and unlicensed preschool ($\overline{X}$=3.4). Given the variability of school practices in class rankings, no tests of significance were performed.

Table 10

Mean class ranking by preschool category

	1st		2nd		3rd		
	$\overline{X}$	sd	$\overline{X}$	sd	$\overline{X}$	sd	Total Mean
Licensed	2.9	2.1	2.7	1.5	2.7	1.6	2.7
Unlicensed	3.4	2.2	3.4	2.3	3.4	2.1	3.4
Other	3.2	2.1	3.3	1.9	3.1	2.0	3.2
None	3.7	2.4	3.4	2.1	2.9	2.1	3.3

Table 11 presents the means and standard deviations of lateness for each of the four preschool categories. As these data indicate in the first grade, children with no preschool experience (none) were late fewer times ($\overline{X}$=.66), followed by children from the licensed programs. In the second grade, the "none" group also had fewer mean latenesses although the other three group means were similiar. For the third grade both the licensed children and the "none" group similarly were tardy fewer times ($\overline{X}$=1.3). In terms of total means over the three grades, the "none" group was late fewer times ($\overline{X}$=4.4) than the other groups. A Critical Ratio Test indicated that the differences between the groups were not statistically significant.

Table 11

Mean lateness by preschool category

	1st		2nd		3rd		Total	
	X	sd	X	sd	X	sd	X	sd
Licensed	.98	2.2	1.7	2.9	1.3	2.7	5.3	9.8
Unlicensed	1.2	2.4	1.7	2.9	1.9	3.1	7.0	12.5
Other	1.3	2.7	1.6	2.8	1.9	3.0	5.5	9.9
None	.66	1.8	1.4	2.7	1.3	2.7	4.4	7.5

Table 12 presents the mean school absences over the three grades for each preschool category. During the first grade, children from the "other" programs had fewer absences ($\bar{X}$=18.8) while in the second grade children in the licensed program were absent fewer times from school. Third grade absences were fewer for the unlicensed children ($\bar{X}$=2.4). As Table 12 indicates, the total absences over the three years were lowest in the licensed group and highest among the "none" category.

It is interesting to note that absences generally decreased for all groups from the first grade to the third grade. Figure 1 presents these data graphically.

Table 12

Mean Absences by preschool category

	Grades							
	1st		2nd		3rd		Total	
	$\bar{X}$	sd	$\bar{X}$	sd	$\bar{X}$	sd	X	sd
Licensed	19.3	18.8	12.9	11.3	9.0	12.4	38.4	25.9
Unlicensed	22.0	18.7	15.7	15.9	8.9	13.0	42.8	30.1
Other	18.8	15.1	13.9	13.3	11.3	15.0	42.3	27.5
None	22.6	20.3	18.3	18.0	11.2	16.0	46.4	28.9

Table 13 presents mean interclass and interschool transfers for each preschool group. For both categories of transfers, the means were less than 1, which indicates that for all groups very few interschool and interclass transfers occurred.

Figure 1. Mean absences for grades 1, 2, & 3

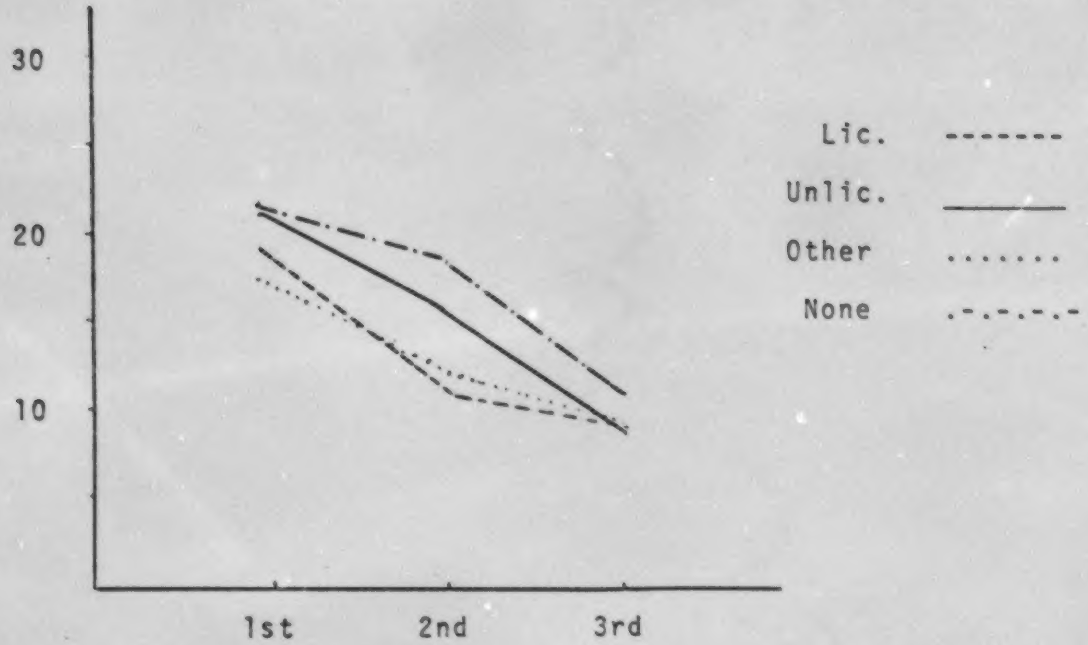

Table 13

Means of interclass and interschool transfers by preschool category

	Interclass	Interschool
Licensed	.17	.21
Unlicensed	.13	.32
Other	.15	.21
None	.16	.20

---

3. Personal/Social Ratings

This category of school record data includes teachers ratings of the child's personality and social behavior along six dimensions for each year. Also, opened ended comments recorded by each teacher were coded and classified into either positive or negative categories.[1]

Table 14 presents the mean personal/social scores for each group along the four preschool categories. Generally, children from licensed programs obtained higher scores at each grade level, although regression analysis procedures used to test differences did not yield any significant differences. As the data in Table 13 indicate , all groups received somewhat comparable scores.

Table 14

Mean personal/social data ratings across grades by preschool category

	Grades					
	1st		2nd		3rd	
	$\bar{X}$	sd	$\bar{X}$	sd	$\bar{X}$	sd
Licensed	17.5	1.6	17.1	2.2	17.1	2.1
Unlicensed	17.3	1.7	17.1	2.3	16.9	2.5
Other	17.1	1.9	16.9	2.3	16.8	2.6
None	16.9	2.5	16.7	2.9	16.4	3.2

Table 15 presents the means and standard deviations of the six social/personal behavioral rating categories. Generally, licensed day care children scored higher than the other groups on category 1 - getting along well with other children, category 2 - obeys school rules and regulations, category 4- is satisfied with a reasonable amount of attention, and shows self control. Using a regression analysis procedure in which differences between the licensed group and the other three programs were compared, significant differences occured between the licensed and the "none" group on satisfied with a reasonable amount of attention (category 4) and participates in class (category 6). Both differences were significant beyond the five percent level of significance. Table 15 contains a summary of the regression analyses.

---

[1] See appendix A for public school records

Table 15

Mean personal/social category ratings by preschool groups*

	1		2		3		4		5		6	
	$\bar{X}$	sd	$\bar{X}$	sd	$\bar{X}$	sd	$\bar{X}$	sd	$\bar{X}$	sd	$\bar{X}$	sd
Licensed	8.7	.87	8.7	.90	8.5	1.16	8.6	.97	8.5	1.16	8.7	.86
Unlicensed	8.5	1.08	8.5	1.15	8.5	1.18	8.6	1.07	8.3	1.65	8.8	.74
Other	8.5	1.13	8.6	1.15	8.6	.92	8.5	1.01	8.1	1.64	8.5	1.33
None	8.5	1.20	8.5	1.26	8.2	1.71	8.3	1.49	8.2	1.51	8.3	1.41

*1=gets along with others, 2=obeys rules, 3=carrys out responsibilities, 4=satisfied with attention, 5=has self control, 6=participates in class.

Table 16

Regression analysis summary table for personal/social category ratings

Gets along	NS
Obeys rules	NS
Carries out responsibilities	NS
Satisfied with attention	4.83 ($p>.05$)
Has self control	NS
Participates in class	5.13 ($p>.05$)

*L=licensed, U=unlicensed, O=other, N=none, NS=not significant

Table 17 presents the intercorrelations between the personal/social behavior ratings by category and total scores for each grade level (see variables 7, 8, 9). As these correlations indicate, a high and consistent relationship exists between each category rating. The range of coeifficients is from .33 to .88 with most between .50 to .60. Although factor analysis is beyond the scope of the present study, the correlational matrix is highly suggestive for performing such a procedure in order to identify factors that exist for these personal/social ratings.

Table 17

Correlational matrix of personal/social behavior ratings by categories and grades

		1	2	3	4	5	6	7	8	9
Gets along	(1)		.73	.50	.63	.71	.33	.56	.66	.63
Obeys rules	(2)			.65	.68	.76	.49	.81	.76	.88
Carrys out resp.	(3)				.59	.59	67	.62	.74	.72
Satisfied/attention	(4)					.72	.52	.63	.74	.77
Self control	(5)						.49	.69	.81	.75
Participates/class	(6)							.62	.61	.59
1st grade	(7)								.60	.48
2nd grade	(8)									.70
3rd grade	(9)									

The means and standard deviations of both positive and negative teacher comments are contained in Table 18. As these data indicate, children from all four groups generally received higher mean positive comments than negative comments. Critical ratios were computed to determine the differences between groups in terms of positive and negative comments. As the data in Table 19 indicate, significant differences were obtained for both the licensed and the "other" children, thus indicating that these two groups received significantly greater positive comments than negative comments. Differences between positive and negative comments for the unlicensed and "none" children were not statistically significant.

Table 18

Total mean positive and negative teacher comments by preschool category

	Positive		Negative	
	$\bar{X}$	sd	$\bar{X}$	sd
Licensed	2.81	2.3	1.81	1.9
Unlicensed	1.59	1.6	1.57	1.9
Other	2.24	2.2	1.50	1.8
None	1.91	2.1	1.78	1.9

Table 19

Critical ratios of positive and negative comments by preschool group

	Direction	z Values
Licensed	P>N	4.14 (p>.01)
Unlicensed	NS	
Other	P>N	3.20 (p>.01)
None	NS	

NS=not significant; P=positive, N=negative

4. Physiological/Health Data

This category of data from school records includes auditory and visual test results and height and weight measures. These data are recorded annually by the classroom teacher, except in the case of the auditory tests, which is usually administered by an assistant principal.

The vision test data, based on the administration of the Snellen Visual Test categorizes children into "normal" or "abnormal". For those children who wear glasses, the same bipolar categorization precedure was used. The results of the vision test data for each preschool category are presented in Table 20. Across the three grades, it can be observed that the proportion of children (among all preschool groups) whose vision was classified as "normal" decreased, while there was a concomitant increment of children with "abnormal" vision from grades one to three. Relatedly, the licensed day care group had the lowest percentage of children with normal vision in the first and second grades, while the "other" children had the lowest percentage of normal vision in the third grade. In terms of "abnormal" vision, the licensed day care group had the highest percentage of children in the first and second grade, while the greatest percentage of third grade "abnormal" vision was in the "other" preschool category.

Table 20

Visual test results by preschool group over grades (in percentages)

	1st		2nd		3rd	
	Normal	Abnormal	Normal	Abnormal	Normal	Abnormal
Licensed	74.2%	25.8	67.6	32.4	61.6	38.4
Unlicensed	77.7	22.3	76.3	23.7	68.8	31.2
Other	77.5	23.5	69.2	30.8	56.0	44.0
None	79.6	20.4	73.5	26.5	67.0	33.0

The auditory data were obtained from an audiometer test that was administered to the child. On the basis of the child's test results, his hearing ability was recorded on school records as either normal or abnormal. Public school officials have reported that this test procedure is usually gross and administered under imperfect conditions, thus necessitating caution in interpreting the accuracy of results.

The auditory test results are presented in Table 21. As can be seen, in all four groups of children, over 90% were classified as having normal hearing during the first grade. The percentage of normal hearing, over groups, drops in both the second and third grades. In terms of "abnormal" hearing, in the first grade, the licensed day care children have the highest percentage of "abnormal" hearing, while the "other" group has the highest percentage of "abnormal" hearing in the second and third grades.

Table 21

Hearing test results by preschool group over grades

	1st		2nd		3rd	
	Normal	Abnormal	Normal	Abnormal	Normal	Abnormal
Licensed	90.0%	10.0	91.6	8.4	90.0	10.0
Unlicensed	93.1	6.9	94.9	5.1	94.7	5.3
Other	91.1	8.9	87.5	12.5	85.3	14.7
None	96.1	3.9	96.0	4.0	95.8	4.2

Indices of growth were also contained in the school records. Standing height (without shoes) was recorded by the classroom teacher during the early months of the school year. Table 22 presents the mean height for each preschool category for grades 1, 2, and 3. As this table indicates, the mean height on each grade level was very uniform with approximately a two inch growth between grades. It is also interesting to note that the standard deviations increase slightly from grades one to three.

Table 22

Mean height (in inches) by preschool group over grades

	1st		2nd		3rd	
	$\bar{X}$	sd	$\bar{X}$	sd	$\bar{X}$	sd
Licensed	47.8	2.2	50.1	2.7	52.5	3.2
Unlicensed	49.9	2.6	50.2	2.6	52.7	3.0
Other	47.4	2.7	50.3	3.0	52.5	3.6
None	47.2	2.8	49.9	2.9	52.2	3.4

The second index of growth recorded in school protocols is weight which was taken with indoor clothings (without shoes). Table 23 presents the mean weights of children in the four preschool categories. The results of the regression analysis that tested for significant differences are contained in Table 23. Using the licensed group as the base of comparison, significant differences were obtained in the first grade; namely, that the licensed group of children weighed significantly greater ($\bar{X}$=31.6) than the "other" group children ($\bar{X}$=49.9). No significant differences resulted from the regression analysis of second and third grade weights.

Table 23

Mean weights by preschool group over grades

	1st		2nd		3rd	
	$\bar{X}$	sd	$\bar{X}$	sd	$\bar{X}$	sd
Licensed	51.6	7.9	56.8	9.8	63.3	11.8
Unlicensed	50.8	7.9	55.9	9.2	63.9	11.4
Other	49.9	9.6	54.4	10.3	64.5	12.8
None	49.7	7.1	56.1	8.4	62.7	10.7

Table 24

Summary of regression analysis of weights by preschool categories over grades

1st grade	L>O	4.39 (<.05)
2nd grade	NS	
3rd grade	NS	

*L-licensed, O=other, NS=not significant

5. School Achievement Data

The results of the MAT reading measures for the second grade are reported in Table 25. Generally, these data indicate that the children from licensed programs obtained higher grade equivalent scores for all three reading measures (vocabulary, comprehension, and total reading). Children from "other" (i.e. Head Start and Prekindergarten groups received the second highest scores followed by the unlicensed group and then "none". It is interesting to note that the "other" category had the highest standard diviations on all three reading measures, this indicating a greater dispersion of scoring.

Table 25

Mean MAT reading grade equivalent scores for each group over subtest area (2nd grade)

		Vocabulary	Comprehension	Reading
Licensed	$\bar{X}$	2.96	2.86	2.89
	sd	8.89	7.40	7.80
Unlicensed	$\bar{X}$	2.51	2.56	2.53
	sd	7.06	8.33	6.88
Other	$\bar{X}$	2.93	2.68	2.79
	sd	12.80	9.22	9.62
None	$\bar{X}$	2.19	2.21	2.19
	sd	6.78	5.88	5.52

Regression analysis procedures were used to detect differences between groups on these measures. The results of these analysis are presented in Table 26 which indicates the direction of group scoring for each reading test and the F values.

Table 26

Summary of regression analysis on second grade MAT reading scores

	Direction*	F Values	P Values
Vocabulary	L>U	18.89	<.01
	L>N	6.34	<.01
Comprehension	L>U	16.49	<.001
	L>O	5.50	<.001
	L>U	70.92	<.001
Reading	L>U	24.97	<.01
	L>N	84.88	<.001

*L=licensed, U=unlicensed, O=other, N=none

On the MAT vocabulary subtest, the children from licensed preschool programs obtained significantly higher grade equivalent scores ($\bar{X}$=2.96) than both the unlicensed group and the "non" group. The licensed group children also scored significantly higher on comprehension (F values=16.49, 5.50) than the unlicensed, "other", and "none" children. On the total reading score, the licensed children scored significantly higher than both the unlicensed and the other children.

The third grade MAT reading test data are presented in Table 27. The results of the regression analysis procedure indicate (see Table 28) that on the vocabulary measure, the licensed children obtained significantly higher scores than both the unlicensed and the "none" children, but not the "other" children. Third grade comprehension results indicate that the licensed children again scored significantly higher than the unlicensed, "other", and "none" children. Grade three total reading average data indicate similiarly that the licensed children scored significantly higher than all remaining three groups.

Table 27

Mean MAT reading grade equivalent scores for each group over subtest area (3rd grade)

		Vocabulary	Comprehension	Average
Licensed	$\bar{X}$	3.55	3.57	3.52
	sd	9.03	9.72	8.27
Unlicensed	$\bar{X}$	3.09	3.16	3.08
	sd	9.65	10.57	7.47
Other	$\bar{X}$	3.51	3.21	3.25
	sd	12.95	12.58	9.54
None	$\bar{X}$	2.67	2.81	2.64
	sd	8.72	9.06	5.92

Table 28

Summary of regression analysis on third grade MAT reading scores

	Direction*	F Values	P Values
Vocabulary	L>U	15.29	∠ .001
	L>N	29.81	∠ .001
Comprehension	L>U	17.66	∠ .001
	L>O	9.13	∠ .01
	L>N	16.26	∠ .001
Reading	L>U	22.40	∠ .001
	L>O	7.40	∠ .01
	L>N	36.31	∠ .001

*L=licensed, U=unlicensed, O=other, N=none

Relatedly, it is important to evaluate these reading test data from another perspective. In recent years, New York public school officials have begun to analyze reading test data according to the proportion of children who are reading on grade level. Such data are reported by using the testing date (month) of March, when reading tests are administered, as the grade level or equivalent. A similiar procedure of analysis was applied to the present data. Table 29 presents a summary of these data. As is indicated, a greater percentages of licensed children (55%) are reading at or above second grade level (2.7) than the other three groups. Similiarly, for third grade scores, licensed children have a greater percentage (33%) reading at and beyond grade level. It is important however to consider that from the second to the third grades, the proportion of children reading at grade level decreases for all four groups. The greatest decrement occurs in the licensed group (from 55% to 33%), while the smallest drop in percentage occurs in the "other" group (41% to 34%).

Table 29

Percentage of children reading at or above grade level for 2nd and 3rd grades by preschool category*

	Grades	
	2nd	3rd
Licensed	55%	33%
Unlicensed	34%	14%
Other	41%	34%
None	13%	5%

---

*Calculated on the basis of the seventh month of school year (i.e. March) when tests are usually administered; thus 2.7 of the second grade and 3.7 of the third grade.

As previously mentioned, the MAT mathematics tests were administered in the third grade. Contrary to MAT reading test data, the unlicensed children and "other" children obtained higher scores than the licensed and "none" children (see Table 30). In fact, the licensed children obtained the lowest scores on the four mathematics measures. Table 31 presents the summary of the regression analysis performed on the mathematics data. As is indicated in this table, no significant differences were obtained, although the unlicensed children scored higher (mean grade equivalent=3.68) on the computation and concepts ($\overline{X}$=3.69) subtests; "other" children scored higher ($\overline{X}$=3.64) on problem solving; and on the total mathematics score, the unlicensed group led the other three groups (see Table 30).

Table 30

Mean MAT mathematics grade equivalent scores for each group over subtest area (3rd grade)

		Computation	Prob.Solving	Concepts	Total
Licensed	$\overline{X}$	3.30	3.26	3.22	3.25
	sd	9.82	11.82	12.44	10.36
Unlicensed	$\overline{X}$	3.68	3.56	3.69	3.50
	sd	16.25	13.70	13.98	10.29
Other	$\overline{X}$	3.58	3.64	3.65	3.45
	sd	9.43	14.52	17.79	14.91
None	$\overline{X}$	3.66	3.61	3.59	3.38
	sd	16.88	16.50	16.37	12.33

Table 31

Summary of regression analyses on third grade MAT mathematics scores

	Direction	F Values
Computation	NS	.86(LvsU),.12(LvsO),.02(LvsN)
Problem Solving	NS	.09(LvsU),1.44(LvsO),.24(LvsN)
Concepts	NS	.02(LvsU),2.11(LvsO),.17(LvsN)
Total	NS	.51(LvsU),1.74(LvsO),.94(LvsN)

NS =not significant

Table 32 presents the results of the New York State Reading and Mathematics Tests that were administered in the third grade. The data reported represent percentile scores of both tests for the four preschool categories. As in indicated, the unlicensed and "other" groups obtained mean reading scores at the 37th percentile, while the "none" mean score was at the 35th percentile. On the mathematics test, the "none" group achieved the highest mean percentile score (37th). Regression analysis procedures did not result in any significant differences between groups on either test.

Table 32

Mean percentile ranks on the New York State Reading and Mathematics Tests

	Reading	Mathematics
Licensed	36%ile	33
Unlicensed	37	35
Other	37	34
None	35	37

6. Sex Differences

Mean scores of sex differences on several dependent variables are summarized in Table 33. The results of testing for statistical significance are presented in Table 33. As this table indicates, significant differences between males and females by preschool category were found on the following measures:

a. Class ranking - males were ranked in higher achieving third grade classes than females for the licensed, unlicensed, and "other" groups.

b. Positive comments - females in all groups received more positive comments than males from teachers

c. Gets along - females in the licensed, "other" and none groups received higher scores on "getting along well with other children" than males.

d. Obeys rules - females in all preschool groups received higher scores on "obeys school rules and regulations" than males.

e. Satisfied/attention - females in all preschool groups received higher scores on "is satisfied with a reasonable amount of attention" than males.

f. Self control - females in all preschool groups received higher scores on "shows self control" than males.

g. MAT Reading Average (2)-females in all preschool groups received higher scores on the second grade MAT Reading Average than males.

h. MAT Math Average, (3)-males in all preschool groups received higher scores on the third grade MAT Mathematics Test than females.

i. N.Y. State Math - males in the licensed and unlicensed groups received higher scores on the N.Y. State Mathematics Test than females.

Table 33

Mean sex comparisons on selected variables by preschool category

Variable	L		U		O		N	
	M	F	M	F	M	F	M	F
n=	(85)	(74)	(112)	(107)	(86)	(65)	(87)	(102)
1. Class ranking(3)	2.87	2.49	3.51	3.31	3.50	2.70	2.89	2.89
2. Total lateness	6.01	4.50	6.81	7.26	6.31	4.34	4.15	4.60
3. Total absence	37.31	39.61	40.89	44.87	41.70	43.08	46.99	45.96
4. Negative comments	1.89	1.70	1.52	1.63	1.73	1.18	2.17	1.45
5. Positive comments	2.66	2.97	1.57	1.61	1.83	2.78	1.72	2.07
6. Gets along	8.61	8.78	8.54	8.52	8.33	8.69	8.03	.77
7. Obeys rules	8.49	8.80	8.44	8.61	8.33	8.86	7.80	8.88
8. Carries resp.	8.32	8.68	8.68	8.39	8.48	8.83	7.70	8.48
9. Satisfied/attention	8.46	8.78	8.60	8.63	8.39	8.74	7.77	8.56
10. Self control	8.32	8.66	8.18	8.41	7.80	8.54	7.57	8.58
11. Participates	8.66	8.66	8.84	8.65	8.13	9.00	8.03	8.48
12. Height(3)	52.44	52.49	52.19	53.09	52.05	53.12	53.20	51.42
13. Weight(3)	62.91	63.85	63.71	64.28	63.57	55.70	64.81	60.99
14. MAT Reading(2)	2.86	2.92	2.52	2.54	2.62	3.00	2.08	2.29
15. MAT Reading(3)	3.56	3.41	3.06	3.08	3.03	3.55	2.53	2.23
16. MAT Math(3)	3.30	3.19	3.69	3.35	3.54	3.31	3.64	3.17
17. N.Y. State Reading	39%	34	38	36	35	40	34	36
18. N.Y. State Math	36%	30	38	32	33	35	35	39

Table 34

Summary of regression analysis of sex differences across preschool categories

VARIABLES	DIRECTIONS	F VALUES
1. Class ranking(3)	M>F(L,U,O)	3.94*
2. Total lateness	NS	
3. Total absence	NS	
4. Negative comments	NS	
5. Positive comments	F>M(L,U,O,N)	4.95*
6. Gets along	F>M(L,O,N)	6.34*
7. Obeys rules	F>M(L,U,O,N)	16.18**
8. Carries resp.	NS	
9. Satisfied/attention	F>M(L,U,O,N)	6.23*
10. Self control	F>M(L,U,O,N)	11.31**
11. Participates	NS	
12. Height (3)	NS	
13. Weight (3)	NS	
14. MAT Reading (2)	F>M(L,U,O,N)	4.11*
15. MAT Reading (3)	NS	
16. MAT Math (3)	M>F(L,U,O,N)	3.90*
17. N.Y. State Reading	NS	
18. N.Y. State Math	M>F(L,U)	3.96*

L-licensed, U=unlicensed, O=other, N=none
*=$p \angle .05$
**=$p \angle .01$
NS=not significant

While these aforementioned areas represent statistically significant differences between boys and girls, it is also revealing to examine that certain other variables suggest that sex differences are occuring. For example, in terms of total days absent, girls were absent more days in all groups except the "none" category. On the other hand, boys were reported as being more late to school than girls in the licensed and "other" groups, while the girls led the boys in the unlicensed and "none" categories.

Another major area of nonsignificant, yet suggestive sex differences is teacher ratings. In addition to the girls' significantly higher ratings on getting along, obeying rules, satisfied with attention, and self control, girls received fewer negative comments from teachers in the licensed, "other", and "none" categories. Similiarly, girls received higher ratings on carrying out responsibilities.

In terms of academic achievement, girls scored higher (although not significantly) on the MAT third grade reading average measure in the unlicensed, "other" and none categories. On the other hand, boys in the licensed and unlicensed groups performed better on the New York State Reading Test.

7. Wave Differences

The means of preschool groups by waves (or years) are presented in Table 35. Regression analysis procedures were used to discern differences in preschool group scoring between the three years. Tests for within - and between - wave differences were computed. The results of these analyses showed that only on the Metropolitan Reading Average score-3rd gr. (F=3.51) did consistent differences exist in favor of the licensed children. Their mean grade equivalent scores (X=3.5) were higher over the three waves.

Although most of the variables failed to discern stability of group scoring over the waves, it is important to examine particular variables. For example, on the interrelated variables of lateness and absence, variations in group means occured between 1967 to 1969, particularly in terms of total latenesses. However, in total absences, the data indicate that the licensed children were absent from school fewer times both when compared to the three remaining groups and from 1967 to 1969. In terms of negative and positive teacher comments, again the results are variable especially in terms of negative comments. It is interesting to note however licensed children received higher mean positive comments than other groups over waves. Physical stature data (weight and height) do not present a differential pattern from year to year. Mean scores of groups over years were so similiar that differences were cancelled out.

In terms of the non-significant achievement data (MAT Reading (2), MAT Math, New York State Reading and Math), the existence of high variability of scoring trends also characterizes the inconsistency of this set of data. The groups did not tend to score similiarly or higher from wave to wave.

Table 35

Means of selected variables over waves by preschool group

		1967 Wave 1	1968 Wave 2	1969 Wave 3
Total lateness	L	5.5	4.7	5.6
	U	9.2	6.4	5.9
	O	5.3	5.2	6.3
	N	4.7	5.4	3.1
Total absence	L	45.6	36.1	29.8
	U	48.5	49.1	32.1
	O	50.4	44.5	30.1
	N	54.4	54.9	32.6
Negative comments	L	2.1	2.0	2.0
	U	2.0	1.7	1.7
	O	1.5	1.7	1.0
	N	2.1	2.1	1.3
Positive comments	L	3.0	2.7	2.6
	U	1.8	2.1	.9
	O	2.3	2.6	1.5
	N	1.6	2.1	1.8
Height	L	53.3	51.9	52.1
	U	52.4	52.2	53.3
	O	52.5	52.4	52.8
	N	51.9	52.3	52.1
Weight	L	66.9	61.2	61.3
	U	63.2	63.2	65.4
	O	65.8	64.0	64.3
	N	65.0	63.9	59.3

Table 35 con't.

		1967 Wave 1	1968 Wave 2	1969 Wave 3
MAT Reading (2)	L	2.9	2.7	2.9
	U	2.4	2.6	2.5
	O	2.4	2.9	2.9
	N	2.0	2.2	2.3
MAT Reading (3)	L	3.5	3.5	3.5
	U	2.9	3.3	2.9
	O	3.2	3.3	3.4
	N	2.6	2.6	2.7
MAT Math	L	3.5	3.1	2.8
	U	3.2	3.8	2.8
	O	3.1	3.5	3.7
	N	3.1	3.6	3.1
N.Y. State Reading	L	42%ile	34	30
	U	32	44	36
	O	34	37	39
	N	32	34	40
N.Y.State Math	L	39%ile	33	26
	U	31	42	35
	O	30	32	41
	N	39	36	41

VII. DISCUSSION AND IMPLICATIONS

A major question to which this report is addressed is: what is the impact of differential preschool programing on children's early school achievement? The findings of the report, as mentioned previously, can not fully and unequivacally provide the answer to this question, however, the data presented here are highly suggestive along many dimensions.

First, a discussion of the children in this sample would seem appropriate. Similiar to many black children who reside in large northern Metropolitan areas, the majority of the children were born in the North, although their parents were born (and presumably raised) in the South. It is difficult to speculate accurately about the constellation of demographic factors that have determined the life styles of either the children and/or their parents, however, certain tenable notions can be presented. For instance, the smaller proportion of children with no preschool experience born in the North (88%) might imply more recent New York City residency for the child's family and a reluctance for or less knowledge about quality child care facilities. This set of data (see tables 4-6) does seem to indicate that the licensed day care program would tend to have more children who were born in New York. Also, within this context, it seems that the licensed day care mothers are more likely to be northern born. Perhaps these mothers, with more familiarity with New York City, would be more likely to enroll their children in licensed programs.

A second important distinction is the number of siblings in a child's family. Although no significant differences between groups existed, these data are generally suggestive of the similiarity between the preschool categories in terms of number and birth order effects (if any). Further research, particularly on birth order effects would be highly appropriate since the licensed group, who obtained higher school achievement scores, had more older siblings and fewer younger siblings than the remaining three categories. For example, does the presence of older siblings lead to greater school achievement in low income black children similiar to the present sample? This and other cogent research questions would seem plausible.

Data related to adults with whom the child resides are also noteworthy. Recently, Robert Hill (1971) in a landmark analysis of the black family, reported that over 75% of black families studied were intact (with parents living together). The data from the present report confirm Hill's findings although the factor of school record accuracy must be considered. In any event, it seems that the sample of children in the present study do in fact live with both parents. Related to this factor, the issue of family mobility is germane. Twenty-five percent and fewer of the children's families moved one or more times. This small percentage indicates that the majority of the children have resided in the same location and come from families who are stable. However, one must still question the significance of mobility as an valid index of family instability/stability in the black community. As previously mentioned, A second important distinction is the number of siblings in a child's family. Although no significant differences between groups existed, these data are generally suggestive of the similiarity between the preschool categories in terms of number and birth order effects (if any). Further research, particularly on birth order effects would be highly appropriate since the licensed group, who obtained higher school achievement scores, had more older siblings and fewer younger siblings than the remaining three categories. For example, does the presence of older siblings lead to greater school achievement in low income black children similiar to the present sample? This and other cogent research questions would seem plausible.

Data related to adults with whom the child resides are also noteworthy. Recently, Robert Hill (1971) in a landmark analysis of the black family, reported that over 75% of black families studied were intact (with parents living together). The data from the present report confirm Hill's findings although the factor of school record accuracy must be considered. In any event, it seems that the sample of children in the present study do in fact live with both parents. Related to this factor, the issue of family mobility is germane. Twenty-five percent and fewer of the children's families moved one or more times. This small percentage indicates that the majority of the children have resided in the same location and come from families who are stable. However, one must still question the significance of mobility as an valid index of family instability/stability in the black community. As previously mentioned, mobility, when and if it does occur, particularly in this Brooklyn community, might have been necessitated by various urban renewal programs. Secondly, any interpretation of mobility needs to be considered within the context of whether a family moved horizontally (to a similiar community and dwelling) or vertically (to a more valued, desirable community and dwelling).

The value of analyzing the child's school status allows certain implications of his adaptation to the school experience. In terms of class ranking, the licensed day care children were enrolled in higher ranked classrooms. One can correctly assume that licensed day care programs provide the child with certain adaptational mechanisms that the school officials perceive as positive and consequently they assign the child to the higher achieving classes. Similiarly, the children from the "other" category (Head Start and PreKindergarten) have also assimilated earlier and more effectively into the school culture which probably results also in their higher class rankings.

Of course, other major considerations such as frequency of illnesses and family problems must enter into any consideration of a child's attendance. Along these dimensions of school attendance (i.e. lateness and absence), there seems to be no consistent relationship between absence and lateness for the four preschool groups. Children with no preschool experience were late fewer times, yet they led the three remaining groups in terms of days absent. Licensed day care children had the third highest rank in lateness but were absent fewer days in comparison to the three remaining groups. These related data do not provide clear-cut explanations of parental concern or attitudes because of the multiplicity of reasons which might be associated with lateness and absence. However, such findings suggest the need to document reasons for a child's lateness and absence across the four categories.

The manner in which a teacher perceives a child's personal and social behavior can determine significantly how the child reacts to and responds in a school context. Although the personal and social ratings are global measures (see Appendix A), they do provide the teacher with certain normative standards with which to assess a particular child. It is important to mention that many school officials view such ratings differently: some consider the ratings to be superficial and meaningless, while others consider the ratings as vital to the evaluative process for understanding the child particularly during the early school years. Some critics have stated that teachers will use the previous teachers' ratings as the basis for her interactions with the child and also her subsequent ratings of the child's performance. The degree to which this practice is extensive was not determined in the present study and one can only speculate that a normal distribution of teacher practices was being exercised for personal/social ratings.

The finding that licensed day care children received higher personal/social ratings at each grade level (although not significant) is not surprising. Similiarly, the finding that the licensed group scored significantly higher on two behavioral rating categories (and had higher non significant scores on four categories) was also expected. Since the licensed group has had organized experience in a school culture since their third or fourth year, it would seem natural that their adaptation would be greater than the three remaining groups-unlicensed, "other", and "none".[1] Such organized, school-type experiences offered by the licensed centers prepare the child best (in comparison to the other preschool experiences) for working within a group of children and responding to the demands imposed on him by the environment. Of course, these findings are polemical in that the value of such behaviors as rated by teachers is open to serious question as to desirable behaviors in young children.

The ratings are particularly noteworthy when considering the quality and quantity of open-ended teacher comments. Contrary to the belief of some educational experts, teachers tended to write more positive than negative comments about children. One plausible interpretation is that many teachers, either directed by school administrators or their own conscience, were cognizant of the potential damage of a negative comment on a child's subsequent school career. Yet, on the other hand, the teachers probably were influenced by an infinite constellation of factors that determine exactly what they would record. Both the licensed and "other" groups received significantly more positive comments than negative comments. Similiarily, the licensed day care group received a greater number of positive comments as compared to the other remaining groups. Considering these findings simultaneously, it is important to recognize that both the licensed and "other" program are most similiar in terms of providing the children with experiences which he can expect in school. Consequently, children from these two preschool programs can be expected to be perceived by teachers as having positive behavioral traits necessary for school success For example, one early education teacher observed that day care (licensed) children entered her first grade class as more matured and prepared to do classroom work, while the other children (unlicensed and "none") were socially immature. This observation seems to highlight and support the notion that an organized preschool experience does seem to contribute to instilling in the child those behaviors deemed valuable by his teachers.

---

[1] As will discussed subsequently, the "other" category of preschool programs is most similiar to the licensed programs.

Data on the child's physical health status provide relevant information that can influence directly his school achievement. Such data are particularly important in terms of the present study since observations of differences between the four existing groups can be conducted. It is appropriate however to impose reservations on these data since measurements were collected by untrained persons (i.e. school officials).

Data on the vision and hearing tests showed that the licensed day care children had the lowest percentage of "normal" vision and hearing. Although the differences between groups were not significant, the results are surprising. First of all, the licensed day care programs are characterized by a comprehensive health program which presumably would have detected and prevented the incidence of abnormal hearing and auditory problems. Evidently, the licensed children were not more advantaged than their peers (in the three remaining categories). Second, if one considers that the "detected" vision/hearing could have developed subsequent to preschool experiences, an alternative explanation would be appropriate. Third, one must consider that the incidence of "normal and "abnormal" vision and hearing should be examined within the context of the normal distribution of the population of children from which the present sample was drawn. All of these factors are prerequisite to any meaningful interpretation of these findings.

A child's height and weight can provide valuable information in terms of his environment, his relative standing in his group/age norms, and his developmental progress over a specified time period. In terms of height, the children from all four groups were equivalent at all grade levels (see table 21). Similiarly, on data collected from international samples (see Meredith, 1969, and Krogman, 1970) the present sample is similiar in height to normative groups.

A child's weight, which is more influenced by environmental factors (i.e. nutritional status), provides valuable information on physical development. For the present sample, the weights among the four groups were generally within a narrow range of approximately two pounds at each grade level. No differences in weight occured at later grades. Similiar to normative data on height, the present sample was within the same weight range (at appropriate age levels) to large samples.

It is appropriate to utilize weight and height data in combination as a general index of a child's growth. Such a technique as the Wetzel Grid (see Wetzel, 1941) could have been used with the present data to discern preschool group differences. However, such a procedure extends beyonds the limits of the present report.

The school achievement data represents the most salient area for addressing the differential impact of preschool experiences. In terms of reading achievement as measured by the Metropolitan Achievement Tests (MAT), the licensed children performed at a higher level than their peers from the three remaining programs. Results from the New York State Reading Test do not however support significantly this finding. However, the MAT results provide substantial documentation of the superiority of licensed children in reading. The second ranked group was those children from the "other" (i.e. Head Start and Prekindergarten programs). Both findings seem to suggest tentatively that both the licensed and "other" children experienced during their preschool years the kind of prerequisite encounters necessary for reading ability at the second and third grade levels. The data on the percentage of children reading at grade level is also meaningful. Similiar to the reported grade equivalent scores, more of the licensed children (55%), followed by the "other" group (41%), were reading at grade level.

Within this conceptual framework, a well documented phenomenon seems to be occuring across all groups in reading ability from grades two to three. Deutsch (1967) and other writers have developed the term "cumulative deficit" to describe the decrement of school performance in disadvantaged groups from year to year. In the present study, a similiar deficit factor seems to operative since a smaller proportion of children (for all four groups) is reading on grade levels in the third grade as compared to the previous year. Deutsch attributes this deficit as a descriptor of school ineffectiveness rather than an index of a child's scholastic competence. Similiarly, in viewing the present data, one plausible (yet tentative) contention is that the various reading programs begin to lose their effectiveness (even within one year) from second to third grade. Of course, consideration of other intervening variables (e.g. testing instrument, reading approaches, post third grade data) must be entertained.

The MAT mathematics and the New York State Mathematics Test were measures of mathematics ability. No significant differences between groups were obtained and larger mean scores were obtained by different preschool groups across subtest areas (see table 29). It is interesting to note that, contrary to the reading test data, none of the four groups scored at grade level on mathematics. Similiarly, on the New York State Test, the mean percentiles for all four groups were lower than the reading test means. These data suggest that mathematics ability might have lower priority in the curricular areas of the schools in which the data were collected. Generally, when comparing the two curriculum areas, reading enjoys a first order ranking for school achievement. New York's schools, similiar to all others in America, have emphasized their reading programs, especially during the early school years. In fact, every school in which the sample of children were enrolled was discussed by officials in terms of its early reading program. Similiarly, many day care centers (especially the licensed and "other") were very seriously engaged in implementing curriculum experiences which emphasized pre-reading encounters. In the unlicensed centers, reading was not articulated as a salient program feature. Thus, it seems that both the licensed and "other" children began their reading-related skills and experiences prior to public school entry and once in school, these skills were reinforced during the first three grades. On the other hand, the schools did not develop the differential skills related to mathematics achievement.

It is typical to find differences between boys and girls during the early school years. The child development research literature (see Mussen, 1971) has documented various behavioral dimensions of sex differences. Whether these empirical findings collected on diverse (and often white) samples are applicable to the present sample is a consideration. However, more importantly, one needs to concentrate on the present findings as a base of understanding certain sex related developmental differences for urban low income black children.

Generally, as expected and consistent with earlier studies (see Ausubel, 1970), girls received higher scores on personal/social ratings from teachers. It is particularly important to note that on four personal/social dimensions (gets along, obeys rules, satisfied with attention, and has self control), significant differences in favor of girls were obtained. These behaviors are universally consistent with cultural expectations for female behavior and the data confirm this expectation in the case of the present sample. Although schools expect both sexes to perform along these dimensions, the greater frequency of these behaviors among girls indicates that girls have been more effectively socialized in meeting society's expectations.

Sex differences on school achievement measures are somewhat contradictory. The data indicate that girls excelled on second grade reading but boys scored higher on both the MAT and New York State Mathematics Tests. Whether or not differential sex expectation in terms of reading and mathematics is the predominate factor or some other variable can be associated with the differential performance requires further and more intensive investigation. Girls generally scored significantly higher than boys on two of the four school achievement measures, thus supporting the need for further research, particularly in terms of certain underlying socialization experiences that the girls (and boys) encounter during the preschool years.

The existence of inconsistent scoring patterns across waves indicates that there are noticeable variations within groups (except for third grade MAT Reading Average). However, the present data are promising, particularly in terms of teacher ratings of the licensed group children's social/personal behavior and reading achievement. The lack of consistent high scoring in achievement suggests a variability of curriculum practices and methods in the schools; a notion that was confirmed by some school personnel. It seems that only when the public schools stabilize their curricula (especially in reading and mathematics) will there result definite and differential patterns between preschool programs.

In summary then, the present study strongly suggest that the children from licensed day care programs are performing better than their peers during their early school years. This study does not provide, however, support for the notion that licensed day care program experience will lead to greater school achievement. This latter contention can only be appropriately tested through the utilization of more exacting and tightly controlled experimental designs. The absence of such optimal controls, however, does not attenuate the impact of the present results which indicate that the licensed children (and to a lesser degree, the "other" children) encountered relevant preschool programing which was continued in and reinforced by their early public school experiences. The degree to which the licensed children will be able to maintain their gains throughout their subsequent school careers remains the ultimate and primary question.

BIBLIOGRAPHY

Addams, J. *Twenty Years at Hull House*. New York: New American Library, 1910.

Ausubel, D. *Theory and Problems of Child Development (2nd ed.)*. New York: Grune and Stratton, 1970.

Baumgartner, L. Goldsmith, C. and Bokhaut, Y. *The Day Care of Little Children in a Big City*. New York York: Child Welfare League of America, 1946.

Bereiter, C. and Engleman, S. *Teaching Disadventaged Children in the Preschool*. Englewood Clifts, N.J.: Prentice Hall, 1966.

Bloom, B. *Stability and Change in Human Characteristics*. New York: Wiley & Sons, 1964.

Bronfrebrenner, U. *Memo - Comments on the Wolff and Stein Study*. ERIC Document ED 015 029.

Bruner, J. The course of cognitive growth, *American Psychology*, 1964, 19, 1-15.

Davis, M. *Schools for Children Under Six*. U.S. Office of Education Bulletin 15, Washington, D.C.: Government Printing Office, 1947.

Deutsch, M. *The Disadvantaged Child*. New York: Basic Books, 1967.

Evans, E. *Contemporary Influences in Early Childhood Education*. New York: Holt, Rheinhart, and Winston, 1971.

Fein, G. and Clarke-Stewart, A. *Day Care in Context*. New York: Wiley, 1973.

Fleiss, B. *The Relationship of the Mayor Committee on Wartime Care of Children to Day Care in New York City.* Unpublished doctoral dissertation, New York University, School of Education, 1962.

Gordon, E. *Remarks on the Max Wolff Report*. ERIC Document ED 015 030, 1969.

Grotberg, E. *Reviews of Research: 1965-1969.* Washington, D.C.: Project Head Start, Office of Economic Opportunity, 1969.

Hill, R. *The Strengths of Black Families*. New York: Emerson-Hall, 1971.

Hunt, J. McV. Intelligence and Experience. New York: Ronald Press, 1961.

Kamii, C. A Piagetian Method of Evaluating Preschool Children's Development in Classification. Paper mimeographed at Ypsilanti (Michigan) Public Schools, July 1969.

Krogman, W. Growth of head, face, trunk, and limbs in Philadephia white and Negro children of elementary and high school age. Society for Research in Child Development, 1970, Serial No. 136.

Lazerson, M. The historical Antecedents of early childhood education. In I. Gordon (ed.) Early Childhood Education, The 71st. NSSE Yearbook. Chicago: University of Chicago Press, 1972.

Levinstein, P. Cognitive growth in preschools through verbal interaction with mothers. American Journal of Orthopsychiatry, 1970, 40, 426-432.

Meredith, H. Body size of contemporary youth in different parts of the world. Monographs of the Society for Research in Child Development, 1969, Serial No. 131.

Mussen, P. Carmichael's Manual of Child Psychology. New York: J. Wiley, 1971.

Nimnicht, G. A model program for young children that responds to the child. In R.K. Parker (ed.) The Preschool in Action. New York: Allyn and Bacon, 1972.

Parker, R. (ed.) The Preschool in Action. New York: Allyn and Bacon, 1972.

Piaget, J. Play, Dreams, and Imitation in Childhood. New York: Norton, 1962.

Smith, M. and Bissell, J. Report analysis: The impact of Head Start. Harvard Educational Review, 40, 51-104, 1970.

Schaefer, E. and Aaronson, M. Mother's Behavior with Tutor and Child During Tutoring Sessions. Mimeograph, 1966.

U.S. Census Bureau. Vital Statistics of the U.S. Population, 1970. Washington, D.C. Government Printing Office.

Wolff, M. and Stein, A. Six Months Later-A Comparison of Children who had Head Start, Summer 1965 with their Classmates in Kindergarten. ERIC Document ED 015 025, 1966.

Wetzel, W. Physical fitness in terms of physique, development and basal metabolism, JAMA, 116, 1187-1195, 1941.

Appendix A

New York Public School Cumulative Record

ELEMENTARY SCHOOL
CUMULATIVE RECORD
PERSONAL AND EDUCATIONAL
BOARD OF EDUCATION CITY OF NEW

LAST NAME (PRINT)	FIRST NAME	MIDDLE NAME	SEX	DATE OF BIRTH MO.	DAY	YEAR	PLACE OF BIRTH	PROOF OF AGE
			M ☐ F ☐					

FATHER'S FULL NAME	FATHER'S BIRTHPLACE	DECEASED	YEAR	VACCINATION	LANGUAGE IN HOME
		☐		☐	

MOTHER'S FULL NAME	MAIDEN SURNAME	MOTHER'S BIRTHPLACE	DECEASED	YEAR	FIRST ENTERED N.Y.C. SCHOOLS DATE	FROM
			☐			

NAME OF PERSON WITH WHOM PUPIL LIVES IF OTHER THAN BOTH PARENTS

RELATIONSHIP

AT ADMISSION

CHANGES

DATE

FOR K-8 SCHOOLS ONLY

DIPLOMA ☐ CERTIFICATE ☐

PLACEMENT AGENCY, IF ANY

	DATE				
OLDER	BROTHERS				
	SISTERS				
YOUNGER	BROTHERS				
	SISTERS				

BORO	ADDRESS	ZONE	FL. OR APT.	TELEPHONE	BORO	ADDRESS	ZONE	FL. OR APT.	TELEPHONE

SCHOOL AND BOROUGH														
CLASS	INDICATE IF ACCELERATION OR HOLDOVER													
DATE ENTERED CLASS														
CLASS TEACHER'S NAME														
ATTENDANCE	DAYS PRESENT													
	DAYS ABSENT													
	TIMES LATE													
TRANSFER OR DISCHARGE	TO													
	DATE													
	REASON													

LAST NAME (PRINT)	FIRST NAME	MIDDLE NAME	SEX M ☐ F ☐	DATE OF BIRTH MO.	DAY	YEAR

ELEMENTARY SCHOOL CUMULATIVE RECORD – TEST DAT

BOARD OF EDUCATION CITY OF NEW

INDIVIDUAL AND GROUP TEST RESULTS (CONT'D.)

SCHOOL	CLASS	DATE OF TEST	NAME OF TEST	LEVEL	FORM	READING TESTS					MATHEMATICS TESTS					OTHER TESTS			
						GRADE EQUIVALENTS					GRADE EQUIVALENTS					INDIVIDUAL, APTITUDE, ETC.			
						VOCAB.	COMPREHENSION	OTHER (SPECIFY)	AVE. (IF REQUIRED)	PERCENTILE	COMPUTATION	PROBLEM SOLVING	OTHER (SPECIFY)	AVE. (IF REQUIRED)	PERCENTILE				

CUMULATIVE HEALTH RECORD

THE CITY OF NEW YORK
DEPARTMENT OF HEALTH
BOARD OF EDUCATION
104 S

LAST NAME (PRINT) FIRST MIDDLE

		1st	2nd	3rd	4th	5th
Immunizations	Smallpox					
(give date of	Diphtheria-Tetanus					
injections	Poliomyelitis					

Mo.	Day	Year

DATE OF BIRTH

Class	
Date (Month and Year)	
School	
Boro	
Height (in inches)	
Weight (in pounds)	
Vision without glasses	Right Eye
	Left Eye
	Both Eyes
Vision with glasses	Right Eye
	Left Eye
	Both Eyes
Hearing Score Screening	Right Ear
	Left Ear
Hearing Score Pure Tone	Right Ear
	Left Ear
*Teeth	

* Code
√—Dental Certificate Issued √ T—Under Treatment √ T OK—No Treatment Needed √ O K C—Corrected √ T C

Code for Teacher's Observation: √—Observed X—No longer observed

GENERAL	Loss or no gain in weight
	Very fat
	Appears not well
	Tires easily
	Pallor
	Poor co-ordination
	Poor Posture
	Pains in joints
EYES	Styes or crusted lids
	Crossed eyes
	Muscle imbalance
	Frequent headaches
	Squinting
EARS	Discharge
	Earaches
	Fails to hear questions
NOSE & THROAT	Mouth breathing
	Frequent sore throats
	Recurrent colds
	Frequent nose bleeds
NERVOUS SYMPTOMS	Emotional disturbances
	Speech defect
	Nervous—restless
	Twitching movements
	Nail biting
	Excessive use of lavatory

GUIDANCE DATA

PERSONAL – SOCIAL BEHAVIOR

PLACE AN X UNDER SAT. OR UNSAT. FOR EACH ITEM

Gets Along Well With Other Children		Obeys School Rules and Regulations.		Carries Out Responsibilities		Is Satisfied With a Reasonable Amount of Attention		Shows Self-Control		Participates to a Reasonable Extent in Class	
Sat.	Unsat.	Sat.	Unsat.	Sat.	Unsat.	Sat.	Unsat.	Sat.	Unsat.	Sat.	Unsat.

CHECK IF THERE IS A CONFIDENTIAL FILE ☐

WHERE KEPT ____________________

____

COMMENTS

Appendix B

Retrospective Interview

DAY CARE RETROSPECTIVE INTERVIEWS

Draft #2

Center

Date

Name and former title of interviewee

Present title of interviewee

Read to interviewee:

I will ask you various questions regarding your day care center's operation during the time period of 1967 to 1969. Although it might be difficult to reconstruct exactly what the center looked like, please try to remember as much as you can. Some people remember best by recalling a particular child or staff member while others use memorable events that occurred during this time period. What ever is best for you would be helpful. I am not evaluating your center, but attempting to obtain a perspective of what your center was like then.

1. What did you see as the needs of your children?

2. During 1967 to 1969, what was the objective and purposes of your center?

3. Has these objectives and purposes changed since then? If so, how?

4. Was the center's physical appearance different than it is now?

   a. Were there fewer (or more) classes?

      1. Fewer___ more___ the same___

      2. How many classes were there? ___

   b. Was there less space than presently available? Describe.

5. Describe the teaching staff in terms of:

   a. Number of head teachers ___
   b. Number of assistant teachers ___
   c. Number of teaching aides ___

6. Describe the educational levels of the center's staff:

a. director ______________________________

b. teachers: college degrees _____
some college degrees _____
some college training _____

c. assistant teachers:
some college degrees _____
some college training _____
high school graduates _____

d. aides: some college degrees _____
some college training _____
high school graduates _____

e. other:

7. Did any other adults (i.e. volunteers, consultants) work in the classrooms? Describe the frequency and type of work they performed.

a. Did the teachers participate regularly in an outside training program, example, at Bank Street. Where and for how long?

b.

c.

8. How many children were enrolled in each class ______

9. What was the most important objective of the center during this period?

10. What was the least important objective of the center?

11. How would you rank the importance of these curriculum areas in the program in terms of (a) very important, (b) moderately important, (c) least important?

a. Sensory motor skills (development of small and large muscles, coordination, perception)

b. Cognition (reason, label, draw conclusions, making decisions)
c. Language (self expression, toys that foster language)
d. Socioemotional (labeling emotions, expressing emotion, peer group relationships - learning to share)

12. To what degree did your classroom materials emphasize the following curriculum areas? (rate the same as 10)

    a. Sensory motor
    b. Cognition
    c. Language
    e. Socioemotional

13. What was the average length of stay of your staff members during this time?

14. On the average, how frequently did you have staff meetings?

15. How frequently were these meetings?

16. What were the frequent discussion topics at these meetings?

17. Was there any program of parent involvement during this time period? Please describe it.

18. Were the classes arranged in terms of age groupings?

19. How long did the children stay in the program?

    a. during the day

    b. during the year

20. Did your program provide any health service for your children - What? How?

Appendix C

Code Specification Sheet for School Records Data

CODE SPECIFICATION SHEET - School Achievement Data

Card One

COLUMN NO.	DESCRIPTION	REMARKS
1 - 4	I.D. Number	1 = 1967
5	Wave	2 = 1968 3 = 1969
6	Condition	1 = Lic. DC 2 = Unlic. DC 3 = Other 4 = None
7	Sex	1 = Male 2 = Female
8 - 10	Child's Age (in months)	
11	Birthplace	1 = New York City 2 = non NYC
12	Geographic location of birthplace	1 = North 2 = South
13	Father's birthplace	0 = No response 1 = North 2 = South
14	Mother's birthplace	0 = No response 1 = North 2 = South
15	Adult guardian other than both parents	0 = both 1 = Mother 2 = Father 3 = Grandmother 4 = Other
16 - 17	Number of siblings	
18 - 19	Number of older siblings	
20 - 21	Number of young siblings	
22	Number of times family moved	

23	Class ranking (1st grade)	
24	Class ranking (2nd grade)	
25	Class ranking (3rd grade)	
26 - 27	Days absent (1st grade)	
28 - 29	Days absent (2nd grade)	
30 - 31	Days absent (3rd grade)	
32 - 33	Total days absent	(cols. 26 - 31)
34	Times late (1st grade)	
35	Times late (2nd grade)	
36	Times late (3rd grade)	
37 - 38	Total times late	(cols. 34 - 36)
39	Number of interclass transfers	
40	Number of interschool transfers	
	Personal/Social Behavior	
	Across grades	3 = Satisfactory 2 = On line 1 = Unsatisfactory 0 = No response
41 - 42	1st grade	
43 - 44	2nd grade	
45 - 46	3rd grade	
	Across categories	
47	Gets along	
48	Obeys rules	
49	Carrys responsibilities	
50	Satisfied with attention	
51	Self control	
52	Participates	
	Teacher comments	
53	Number of negative comments	0 = No comments
54	Number of positive comments	0 = No comments

Skip columns 55 - 79

80	Card number	Card 1 = 1 Card 2 = 2

Card Two - School Achievement Data

COLUMN NO.	DESCRIPTION	REMARKS
1 - 4	I.D. Number	
Skip columns 5 - 9		
	Child's height (in inches)	
10 - 11	first grade height	
12 - 13	second grade height	
14 - 15	third grade height	
	Childs weight (in lbs)	
16 - 17	first grade weight	
18 - 19	second grade weight	
20 - 21	third grade weight	
	Vision	
22	first grade vision	0 = NR
23	second grade vision	1 = abnormal
24	third grade vision	2 = normal
	Hearing	
25	first grade hearing	0 = NR
26	second grade hearing	1 = abnormal
27	third grade hearing	2 = normal
	Metropolitan Achievement Test Data	grade equivalents
28 - 29	2nd grade Vocabulary	
30 - 31	Comprehension	
32- 33	Average	
34 - 35	3rd grade Vocabulary	
36 - 37	Comprehension	
38 - 39	Average	
	MAT Mathematics Data	
40 - 41	2nd grade Computation	
42 - 43	Problem Solving	
44 - 45	Other	
46 - 47	Average	

48 - 49	3rd grade	Computation
50 - 51		Problem Solving
52 - 53		Other
54 - 55		Average
	New York State Test	
56 - 57	Reading	
58 - 59	Math	

Skip columns 60 - 79

80	Card No. (2)

Appendix D

New York City Department of Health
licensing requirements for group day care centers

N.Y.C. Department of Health

Division of Day Care, Day Camps & Institutions

BASIC REQUIREMENTS FOR GROUP DAY CARE OF CHILDREN UNDER 6 YEARS OF AGE

(Based on the N.Y.C. Health Code - Articles 45 and 47)

The purpose of standards in group day care is to insure the safety, health and well being of young children entrusted by their families to group care.

This summary based on the New York City Health Code, covers the care of young children under 6 years of age in nurseries, child care centers, schools, etc.

Staff

A well trained, interested staff is essential in order to plan and carry out a program for young children which is based on knowledge of their developmental stages and on an understanding of how they learn.

A day care service requires an educational director in charge of the overall program who is qualified in Early Childhood Education and has had a minimum of two years of experience as a group teacher in a program for children under 6 years of age. If there are more than forty children registered, the director should have no teaching duties.

A teacher who is in charge of a group of children needs to be qualified to teach Early Childhood classes in the City of New York. For details see requirements as outlined in Section 47.09 of the Health Code.

(In order for a day care center to operate at the maximum level of service to the community, it is strongly recommended that community representatives, including parents, participate in planning and carrying out the program.)

Premises

Safe, suitable indoor and outdoor premises are a necessity. Buildings must have approval from the Fire and Buildings Departments and from the Bureau of Sanitary Inspections of the Health Department. A building needs to meet the following requirements to be approved:

(1) Sufficient exits for children to get in and out of the building easily in case of fire. Stairways must be enclosed because of the fire hazard of the open stairwell.

(2) An interior fire alarm system is required for more than 30 children.

(3) Premises need to be free from danger and provide a minimum of 30 square foot of space for each child over 2 years of age - 40 square feet for children under 2 years.

(4) Children need sufficient washing and toilet facilities - at least one washbasin and one toilet for 15 children are required for their exclusive use.

(5) Rooms must have sufficient light. The lighting should be measured by the Public Health Sanitarian. All rooms should provide proper ventilation.

(6) A day care service should not be located in a basement - more than 3 feet below ground level - unless an exception by the Health Department has been granted, A service should not be operated above the third floor of a building unless an elevator is provided. If children under 2 years are served, they should not be located above the second floor for safety's sake.

(7) A kitchen is necessary if meals are served. If the program is half day and only snacks are served, a refrigerator to store milk, cheese, fruit, etc. is needed.

(8) Adequate adjacent outdoor play space is necessary.

(No commitment to purchase, lease or renovate a building, should be made until it is determined that premises are suitable or can be made suitable for a day care service.)

Equipment

Children need sufficient, suitable furniture and play equipment, while they are in a day care service. Play equipment should be easily accessible and designed to contribute toward physical and mental growth of the children at their particular age level. Furniture should be sturdy, functional and the right size for the children.

Budget

A realistic budget and sufficient reserves to insure adequate operation of the service is basic in planning a day care service.

Health

A good health plan needs to be made for a day care service. Verification of each child's medical examination and completion of required immunizations need to be on file in the center.

Consultation

Since the protection of young children away from their homes is the obligation of this Division of the Health Department, pediatric, nursing, nutrition, and early childhood education consultants are available to help in planning day care services.